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TAXON

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WHAT IS A TAXON?

H. J. Lam (Leiden)

The fact that Mr. Morton's remarks on the term taxon (Rhodora 59: 43—44. 1957) have been reprinted in the present journal (Taxon 6 (5): 155. 1957) — thank you both for the advertising! — seems to call for a short reply, and I trust that the name of the present "News Bulletin" is not considered another misuse of the term.

It may be of some historical interest to first recall the origin of the term. It was first, semi-subconsciously, conceived when I wrote my paper on "Phylogenetic Symbols, Past and Present" (Acta Biotheoretica ser. A. 2 (3): 153—194. 1936). I had, a few years earlier, returned from a longish stay in the tropics, and the new task of a professorship in Europe entailed new contacts and new interests, and inspired me to new thoughts. I had at that time been impressed by some papers of Prof. A. Meyer (now Meyer-Abich) of Hamburg and when preparing my paper of 1936, came across the term taxon (-a) and phylon (-a) which were introduced in Meyer's "Logik der Morphologie im Rahmen einer Logik der gesamten Biologie", 1926 (pp. 127, 133, 241).

However, Meyer's concept of the term phylon being of a purely philosophical and theoretical nature rather than referring to what we in the "Code" use to call a phylum (divisio), I wrote in my paper of 1936 in a note on p. 180 (referring to the words "taxonomic units" in the text): "I have not checked the matter thoroughly, but it seems to me that Meyer's taxa (and phyla) are more valuable concepts in theory than in practice". As a matter of fact I must confess that I have never clearly understood what exactly Meyer meant with these terms. But feeling a need for a dynamic phylogenetic term to complement the static term "taxon" I suggested a "genorheithrum" for a "flow of coherent genes", as "phylon" would obviously be ambiguous. Genorheithrum is akin to Zimmermann's "hologeny" and Rensch' "Rassenkreise" in a phylogenetical sense (cf. W. Zimmermann, Flora Allg. Bot. Ztg 33: 419. 1939; and B. Rensch, Kurze Anw. f. Zool.-syst. Studien, Leipzig 1934: 102, fig. reproduced in my paper of 1936, p. 190) [1].

In the meantime, on account of my uncertainty about Meyer's meaning, I felt rather at a loss when Prof. G. H. M. Lawrence of Cornell University, who then prepared his "Taxonomy of Vascular Plants" (1951) wrote me for information about the origin of the term. The result may be found in a footnote on p. 53 of his book.

In 1936, however, I did not yet think of the term taxon in the sense we now use (and misuse) it in: and I suppose that I more or less forgot it as a point of little importance, and that, when Dutch taxonomists were invited by Prof. Lanjouw

1) Cf. also my paper (in Dutch) in "Vakblad voor Biologen" 19(11): 202. (1938), in which I stated that the term taxon (-a) stands for what, since Naegeli, is called "Sippe" in German.

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to prepare proposals for what is known as the "Utrecht Conference" of 1948, I subconsciously reinvented the term in its present significance. As every reader of recent taxonomic literature knows, it was accepted by the Stockholm Congress and now appears in the "Code". It seems to have been proposed at the proper moment for its use has spread with lightning rapidity and even seems to have infested the zoological mind.

Sofar regarding the history. Before concluding with a few words in reply to the question which serves as a title to these lines I think I may be permitted to mention the origin of the name of the present journal. I remember that, on one of the last days of the Utrecht Conference (which was a stimulating though rather trying affair), we went for dinner in a local restaurant. Lanjouw and I were seated first; we were tired, but our minds were working on with the problems dealt with (among which the term taxon as well as the idea of establishing an International Association with a Bulletin of its own); and playing with the menu Lanjouw sighed: "Now what shall we call that Bulletin. Do you have a suggestion?" Half jestingly, I grinned: "Why not Taxon"? Lanjouw smiled, but he did not seem to like the idea too well. The subject was dropped then and there and we never discussed it again, but the Bulletin appeared to be called "Taxon" allright.

And now Mr. Morton laments that the term, so enthousiastically received, is occasionally being badly misused. That of course, falls to the discredit of the culprits and it is certainly useful to point out cases of evident abuse, though I think there is no reason to regret its introduction as Mr. Morton seems to fear on my behalf. But when we come to think of it, it is not so easy to give a proper definition of the term. At first sight it seems obvious that (to quote Morton's examples) a taxon, being a collective concept, cannot be "short-haired" or "growing in swamps". On second thoughts, however, it may be considered that any group of organisms with some common character (of whatever kind) has some right to be called a natural group. It may be that such a natural group is extremely ephemerous, such as a gathering of taxonomists with the purpose of discussing the proper use of the term taxon. The people involved are clearly united by a "character", viz. the purpose just mentioned, and I cannot think of a reasonable argument not to call such a gathering a natural group. The same applies to organisms which are evidently united by a common feature, obviously originating from a common cause. We all know groups of organisms bound together by ecological, biological, ethological, and psychological factors. In this light an expression like "ecological taxa" (Van der Pijl, Vakblad voor Biologen 37 (6): 69. 1957) is comprehensible, if not desirable, and it becomes clear that "short-haired taxa" is an (admittedly inadmissible) abbreviation of the expression "taxa consisting of short-haired specimina".

However, if we recognize these as more or less "natural groups" (a surely extremely vague designation), we are not easily inclined to refer to them as taxa.

This takes us to our point: what exactly is, or should be, a taxon? It is undoubtedly meant to cover a natural group or natural groups, but this does of course not mean that every natural group deserves the name taxon. The Rules do not give a definition of course, the term having just been substituting what was formerly called "a taxonomic group" or a similar expression, which was not defined either, and for comprehensible reasons: as Morton correctly states, the taxon concept is an abstraction, which can no more be unambiguously defined than any of the categories it covers.

But, as is the case with any of the categories, taxon has inevitably two significations: as an abstraction, and as a reference to a particular case. In the latter the term may be used, and in fact is used for stylistic reasons, so as to avoid too frequent repetition of the name of the category in question, and if a definition should be required, this

definition coincides with that of the category and might generally be given as a group of organisms which a "good taxonomist" recognizes as (a species, genus, family... etc.).

As an abstraction the term taxon is rather sharply definable if the condition is added that it should denote any nomenclatural category and that by nomenclatural categories we exclusively understand those enumerated in Art. 13 of the Code.

Even so, however, we must be aware that a botanist may be seriously tempted to identify "taxon" and "any natural group", the latter term being applicable to any group of organisms which have some "natural feature" in common.

In conclusion we may state, that taxon is a term which is unloosenably connected with the Code and should not be used in any other context.

THE COMPULSORY LATIN DIAGNOSIS

A. A. Bullock (Kew)

The Paris Code, most painstakingly edited by an international committee under the very able chairmanship of Prof. Lanjouw and astute guidance of Dr. Stafleu, is a vast improvement on all previous editions but there remain some few anomalies, and this note is intended to point out one of them.

Art. 34 of the Paris Code corresponds to Art. 44 of the Stockholm Code, but an attempt was made to close a loophole for escaping the compulsory Latin diagnosis. The Stockholm Code brought forward the effective date to 1 Jan. 1935 for all plants except bacteria and algae; the Paris Code fixed the date for those two groups at 1 Jan. 1958. But there is an addition in the Paris Code which goes far beyond the intention of the Congress and probably beyond the intention of the editorial committee. This is, ".... or by a reference to a previously and effectively published Latin diagnosis". The intention, clearly, is to cover the period since 1 Jan. 1935, prior to which descriptions in modern languages are sufficient for valid publication, but the effect of the wording of the article is to invalidate all new names published since 1 Jan. 1935 which depend upon a reference back to any previously published description, unless the latter was in Latin! It is impossible to say how many names will be affected, but the number must be large.

The following amended wording of Art. 34 will perhaps avoid this difficulty, and bring it into line with Art. 32, which also refers to previously published descriptions [1]:

"*Art. 34.* In order to be validly published, a new name for a taxon of recent plants, the bacteria and algae excepted, published on or after 1 Jan. 1935 must be accompanied by a Latin description, or by a reference to a previously published description in accordance with Art. 32, provided only that such previously published description must be in Latin if it was published on or after 1 Jan. 1935.

The same considerations apply to new names for recent taxa of Algae, except that the effective date is 1 Jan. 1958."

It will be noted that I have substituted the word "description" for "diagnosis", as has been done already in Art. 32 and elsewhere in the Code. Although the word "diagnosis" includes perhaps more than a simple description, in the jargon of

1) Proposal no. 11 submitted to the 9th International Botanical Congress, Montreal 1959.

taxonomy it has come to mean very considerably less and many taxonomists attempt to satisfy the requirements of the Code by a very brief, often meaningless "diagnosis", followed by a description in a modern language.

I have also avoided the use of the expression "new taxon" since this is open to the objection that since a taxon is defined as any taxonomic group admitted or implied by the Code, such as "genus", "species", etc., a new taxon could be something different from these. Further, for the purpose of Art. 34, a taxon is not necessarily new (in the jargon of taxonomy) if a previously published description of it can be cited. In any event, the Code can legislate only as to the names to be applied to taxa.

A SYMBOL FOR INTROGRESSANTS

Hui-Lin Li (Philadelphia, Pa.)

In recent years it has been shown in an ever increasing number of genera and species of plants, and in some animal groups as well, that one of the sources of variation in natural populations is introgressive hybridization, hybridization followed by successive back-crosses between the participating species.

In a strict sense, these introgressants, the name by which these back-crosses and hybrid swarms are now generally known, are different from F_1 hybrids, which are *the* hybrids recognized by most taxonomists. According to the International Code of Botanical Nomenclature (1956), the hybrid is designated by a formula (Art. H. 1, Appendix I of the Code) consisting "of the specific epithets of the parents in alphabetical order connected by the multiplication sign", or "When the hybrid is of known experimental origin, the formula may be made more precise by the addition of the sign ♀ to the epithet of the parent producing the female gamete and ♂ to the epithet of the parent producing the male gamete". The Code also provides that hybrids can be designated "whenever it seems useful or necessary", by a name with the multiplication sign × before the specific epithet.

The multiplication sign had been commonly employed to designate hybrids before its official recognition by the Code. In my opinion, in most of the cases, the formula is sufficient for designating hybrids or putative hybrids. A Latin specific epithet for F_1 hybrids seems superfluous as it greatly complicates the already extremely burdensome botanical nomenclature. A specific epithet is desirable only in such case when the hybrid establishes itself as a constant true breeding line by means of allopolyploidy. The notes under Articles H. 1 and H. 2 of Appendix I of the Code, "When polymorphic parental species are involved and if infraspecific taxa are recognized in them, greater precision may be achieved by the use of formulae than by giving the hybrids 'specific' names", and "In general greater precision will be observed with less danger of confusion if formulae rather than names are used for such [infraspecific] hybrids", should apply to all intra- and infraspecific hybrids and more emphatically stressed in the Code.

According to the above mentioned articles of the Code, it is clear that the formula and the name are designated for F_1 hybrids only. However, the Code seems to neglect the very "precision" it wants to emphasize when in the same Article H. 1 it provides that "When binary 'specific' names of Latin form are used for hybrids, all offspring of crosses between individuals of the same parent species receive the same binary name". In Article C. 24 of the Code of Cultivated Plants (Art. C. 24 of Appendix III of the Code 1952), it provides that such a formula or "collective name"

in the form of a Latin epithet preceded by the multiplication sign × can also be used to indicate "all plants derived from the two or more species...., including subsequent generations from first cross, crosses within these generations and back-crosses with either parent, provided that they are distinguishable from the parents".

Much confusion can be avoided and greater precision can be achieved if such a "collective name" for cultivated plants is used only in non-Latin form (as are also being provided in the Code for Cultivated Plants), while the Latin form is applied only to the F_1 hybrids as provided in Appendix I of the Code. In non-cultivated plants, with which this communication is particularly concerned, there is certainly a need of some distinction between F_1 hybrids of known parentage and their direct descendents on the one hand and back-crosses or hybrid swarms in natural populations on the other.

The Code 1956 eliminates Appendix III of the Code 1952, which is now the Code of the Cultivated Plants. As to Appendix I, Names of hybrids and some special categories, of the Code 1956, it says in the Preface that it "falls within the responsibility of the Committee for the Nomenclature of Cultivated Plants". In the same Appendix, however, Article H. 5 provides the naming of "notomorphs" — different hybrid forms of the same parentage, with Latin epithets. This seems to be duplicating the provision in the Code of Cultivated Plants in naming cultivars where Roman names are used which are far more desirable than Latin epithets.

In a hybrid swarm, it is the entire population and its range of variation that are of taxonomic or genetic significance. And theoretically speaking, every putative hybrid or hybrid population found in nature is a notomorph, as its parentage is always known by inference only and not by experiment. To give such a transient population a Latin epithet as any other taxon is not justified. If such a hybrid form is to be maintained in cultivation, then it should receive a cultivar name as provided in the Code of Cultivated Plants. On the other hand, if such a hybrid form is recognized in nature only, then only a description or a formula with proper explanation or annotation, but not a Latin epithet, will be of any practical value.

In the case of introgressants, it seems that while Latin specific epithets are not necessary, a concise formula with a universally recognized meaning seems to be highly desirable. Such a formula of precise meaning will greatly expedite scientific discourses without the necessity of explaining in every instance the details involved.

There are various symbols currently recognized by the Code for Cultivated Plants for similar purposes such as a slanting line for separating the names of "grafted" or budded plants, the symbol for clones, and the + sign for graft chimaeras or "graft hybrids". These symbols of course cannot be duplicated in their uses.

For introgressants, I venture to propose the use of a formula composed of specific names of the particular species joined together by the > sign. The species showing the larger proportion of the morphological characters involved is placed first, followed by the > sign with the end pointing away from it. Example: *Salix aurita* > *S. caprea*. When more than two species are involved, they can be listed in the same order of their importance and direction of introgression. Example: *Potentilla atrosanguinea* > *P. formosa* > *P. reptans*.

The > sign so chosen fits into the present usage with the added advantage of its ready availability to the printer. It is a common symbol used especially frequently in mathematics and etymology with various meanings.

Back-crosses are indicated by some authors in a formula like this: (*Salix aurita* × *S. caprea*) × *S. aurita*. When the parentage of this combination, especially with respect to the sexes of the parent plants involved, is definitely known, this formula has its merit. However, the much simpler formula *Salix aurita* > *S. caprea* conveys the idea equally well unless exact data obtained by experiment need to be indicated.

And beyond the first few filial generations, the former type of formula will be much too lengthy and involved to serve its purpose.

With the simple formula and symbol here proposed, the taxonomist can also resolve some difficulty in making identifications of plants and in classifying specimens in the herbarium. For instance, for specimens belonging to two species A and B and those showing intergrading characters between the two, there will be five categories for classifying and filing the material: A, B, A $\times$ B, or B $\times$ A, A $>$ B, and B $>$ A.

When population samples are analyzed critically, figures showing the degrees of variation of all characters studied between the two species can be attached to each species in parentheses. These figures may be relative ones or given in percentage. Examples: *Salix aurita* (75%) $>$ *S. caprea* (25%) or *Salix aurita* (3) $>$ *S. caprea* (1). These values of course vary according to the characters chosen and also to environmental differences as well as the relative numbers of plants of the species present. Perhaps in cases where such figures are given, it is desirable also to attach the name of the author and the year of publication as a bibliographical reference.

Apparently there is a growing need for a universally recognized formula for indicating introgressants. If the present proposition can be generally adopted, this need can be filled and much repetitious explanation can be avoided. Inasmuch as introgression occurs in endless combinations and in all varying degrees, it seems that the use of such a formula will be of value not only in taxonomy but also in other fields of study such as genetics and ecology.

GERARDIA AGAIN

Gordon P. DeWolf Jr. (Cambridge, G.B.)

About a year ago (Taxon 5(3): 58—59. 1956) there was published a proposal for the conservation of the name *Stenandrium* Nees, (Acanthaceae) over the name *Gerardia* Linnaeus. More recently (Taxon 6(2): 47—49) another article has been published perporting to refute the original proposal. And now (Taxon 6(5): 157) there is yet another. Some time ago, whilst employed at the Bailey Hortorium, and before the original article was published, I had occasion to investigate the standing of the name *Gerardia* Linnaeus. The following notes, made at that time, would seem to have some bearing on the problem.

In a series of papers published between 1913 and 1935, the late Francis W. Pennell discussed many of the problems, nomenclatural and taxonomic, which arise when dealing with the taxa of the tribe Gerardieae, Bentham (Scrophulariaceae). In the earliest paper in the series, (Bull. Torrey Bot. Club 40: 119—128. 1913), Pennell rejected the name *Gerardia* Linnaeus as a generic name in the Scrophulariaceae and for about 20 years used the name *Agalinis* Rafinesque. In 1935, however, due in part to his own studies, which had convinced him that *Agalinis* Raf. was a synonym of *Chytra* K. F. Gaertner, and also due to the quasi-official standing of the "standard species" concept, he again used, though under protest, the name *Gerardia* Linnaeus for the scrophulariaceous genus.

Since an historical background is essential for an understanding of the various contradictory proposals that have been made with reference to this name, I may perhaps be pardoned for setting forth the facts in some detail.

Linnaeus took up the genus *Gerardia* (no. 503) in the first edition of the Genera

Plantarum (1737), basing it on Plumier's "*Gerardia humilis, bugulae foliis, asphodeli radice*" of the Nova Plantarum Americanum Genera of 1703. The definition given here was emended slightly in the second edition of the Genera, and then carried forward apparently unchanged.

The genus *Gerardia*, as constituted in the Species Plantarum, ed. 1 (1753), vol. 2, pp. 610—611, included five species. The first of these, in point of place, is *Gerardia tuberosa*, based on the afore-mentioned plant of Plumier. Apparently there is no specimen of this species preserved in the Linnean herbarium.

In the second edition of the Species Plantarum, a dagger (†) follows the specific description of *Gerardia tuberosa*. According to the "Lectori" at the beginning of volume 1, this indicates either that the plant was obscure, or that imperfect material had been seen and that a redescription was desirable. This is in contrast to the asterisk (*) which follows descriptions copied from other works. Finally, there is a note in the 2nd. Mantissa (1771) *sub* this species "Fructif. a me non visa, attente examinanda." Despite this, Pennell (Proc. Acad. Nat. Sci. Phil. 82: 19. 1930), and J. E. Smith (Rees' Cyclopaedia), were of the opinion that Linnaeus had taken his generic description from Plumier's plate and had not seen herbarum material.

It is true that Linnaeus published his *Gerardia* in the 1st. edition of the Genera Plantarum, 1737, before he went to Paris in 1738. Therefore, we may assume that the description therein published was drawn from Plumier's Nova Plantarum.... However, in the spring of 1738, Linnaeus spent a month in Paris, chiefly at the Jardin du Roi with the Jussieus'. He noted in the preface to the Species Plantarum that he studied, among others, the herbarium of Surian [1] and it seems possible in the light of this, that he may, in fact, have seen material of Plumier's *Gerardia*.

Linnaeus's four other original species are not only not congeneric with *Gerardia tuberosa*, they do not even belong in the same family.

There has been, at one time and another, some little controversy as to what, if any, are the types of Linnaean genera. So much controversy, in fact, that in 1930, M. L. Green, (Kew Bull. 1930: 373—374) went so far as to propose arbitrary "standard species" for some Linnaean genera, *Gerardia* amongst them. At about the same time, however, Pennell pointed out (Proc. Acad. Nat. Sci. Phil. 82: 10. 1930) that in many cases the generic description was drawn from a single, clearly identifiable species. Nieuwland, (Proc. Indiana Acad. Sci. 42: 83—87. 1932) pointed out soon after, that Linnaeus had laid down rules, both in the Philosophia Botanica and in the Critica Botanica, for the typification of genera. In genera, Linnaeus advocated the use of the "official" species, or the "commonest" species, or the "oldest" species, as a standard.

In the case of *Gerardia*, there can be little doubt as to the generic type. As Pennell has pointed out, *Gerardia humilis, bugulae foliis, asphodeli radice* of Plumier is the "oldest" species as well as the only species in the Species Plantarum, ed. 1. which matches the generic description. The fact that Linnaeus, *through error*, associated other species with it has no bearing on the matter.

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1) In 1689 Plumier was chosen to accompany J. D. Surian, a Pharmacologist who was being sent to study the vegetable productions of the French West Indies. According to Chardon (Los Naturalistas en la America Latina, 1: 52. 1949) Plumier and Surian divided the work, Surian making an herbarium and testing the medical properties of the plants, while Plumier made drawings and notes. Urban (Rep. Sp. Nov., Beih. 5: 5—6. 1920) makes reference to a story that Plumier began an herbarium on this trip, but gave up the idea after the collection was lost by shipwreck. In any event, it seems unlikely that any plants collected by Plumier exist. However, I think that we may well take the plants collected by Surian, which presumably are now in the Musée d'Histoire Naturelle in Paris, as typical of the plants drawn and described by Plumier (Urban, l.c. p. 6).

By the first part of the 19th. century, it had become clear that *Gerardia tuberosa* belonged to the Acanthaceae and the other four Linnaean species were scrophulariaceous. J. E. Smith (Rees, Cyclopedia, sub *Gerardia,* 1810) pointed out that the Linnaean name should logically follow the disposition of the Plumier plant. In 1825, however, Sprengel (Syst. Veg. ed. 16. 2: 825) referred Linnaeus' *Gerardia tuberosa* to synonomy under *Ruellia rupestris* Swartz. Finally, in 1847, C. G. Nees (in D.C. Prodr. 11: 283—284) transferred *Ruellia rupestris,* to his new genus *Stenandrium.*

In 1835 (in W. J. Hooker, Comp. Bot. Mag. 1: 198—201, 204) Bentham redefined *Gerardia* as a genus of the Scrophulariaceae excluding from it the Linnaean type. It is in this sense that the name has been used for the past hundred and twenty years.

There is no question but that *Stenandrium* Nees was synonymous with *Gerardia* Linnaeus and therefore superfluous when published. Neither is there any doubt that the generic name *Gerardia* sensu Bentham, is a homonym of *Gerardia* Linnaeus, and illegitimate. Nor is there any doubt that accepted usage of more than a century, illegitimate or not, ought to be preserved if we are not to make our nomenclature chaotic.

One suggestion has been that we conserve the name *Stenandrium* Nees. If this is done, *Gerardia* may not be used for the scrophulariaceous genus. The name *Chytra* K. F. Gaertner must be taken up, and 40 to 100 new combinations will be necessary.

The alternative suggestion is that we ignore the generic type and arbitrarily take up another species to serve as the generic type, thus conserving common usage. The standard species concept has never had any legitimate standing. It was rejected at the 1935 Congress, and has not been seriously discussed since. It runs counter to our Code of Nomenclature, and it is diametrically opposed to the principle of priority.

It seems to me that we have a third alternative. It would seem logical to *conserve* the name *Gerardia* Bentham. This would maintain the name in its usual connotation. It would do away with the necessity for any purely nomenclatural transfers. And, it seems to me, by rejecting the name *Gerardia* Linnaeus, the name *Stenandrium* would be removed from jeopardy.

It would appear that we have need for clarification of the status of names rejected through conservation. Are such names illegitimate, or are they invalid? Or do they have some special status?

A conserved name, by definition, is an illegitimate name made legal. If, in the present case, we were to conserve the name *Gerardia* Bentham, then the name *Gerardia* Linnaeus becomes, at least, illegitimate. Is it possible then, for an illegitimate name to jeopardize the standing of another name? If *Gerardia* Linnaeus is illegitimate, does not *Stenandrium* Nees, whatever its previous status, become legitimate?

There are now at least 10 papers involved in this problem. They are listed below. Quite enough has been said. The Code, theoretically, aims at stability of names. It is possible to preserve usual usage of both *Stenandrium* Nees and *Gerardia* Bentham by legitimate means. Let us, by all means, do so!

Synopsis (Cf. Sprague, Taxon 1 (1): 14. 1951):

1. — Reasons a. *For Conservation* — Preservation of common usage over the past 203 years.
— To avoid the necessity of making between 40 — 100 new combinations.
b. *Against conservation* — Since there is no doubt as to the typification of the name, there is no legitimate reason why the name should not be used in its correct sense.

— There is an available name for that residue of the genus which does not follow the generic type.
— The name proposed for conservation is not the earliest name subsequent to the original, but it is a later homonym of the original generic name.

2. — a. Number of species. Ranging from about 40 to perhaps 100 depending on the generic concepts used.
b. Geographic range. — New World.

3. — The name has been used illegitimately in all major reference works.

4. — With two exceptions the generic name has been used illegitimately in all floras of the New World area.

5. — The name was used, under protest, illegitimately in the last monograph of the group (Pennell, 1935).

6. — There appears to be no major economic importance involved.

7. — A few (probably less than 12) species are of minor horticultural value.

8. — There is no particular morphological, ecological, or phytogeographical importance attached to any of the species.

9. — Most illustrations are listed under the illegitimate generic name.

10. — For 170 years after its publication the generic name was used universally in an illegitimate manner. Since 1913 only 3 authors — so far as I know — have attempted to use the legitimate names, and one of these, the monographer, capitulated and used the illegitimate name in his last work on the subject.

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COMMENTS ON THE PROPOSED FLORA OF EUROPE

R. A. Davidson (Iowa City, Iowa)

Dr. Heywood's report on the Proposed Flora of Europe (Taxon, March, 1957) was interesting and welcome news. The careful planning which already has been accomplished is as obvious as are the merits of this Gargantuan undertaking.

One decision made by the policy committee does warrant, however, a few comments. This decision concerns the treatment of hybrids in the Flora of Europe: "Those which have been reported only infrequently will not be mentioned — they would be too numerous and their inclusion would add little information of value".

Diagnosticians and taxonomists have much in common. In certain areas of their total function, the one is to medicine as the other is to botany. The lead pronoun, *those*, in the previously quoted statement refers to *hybrids*. Could the same statement be considered acceptable to diagnosticians if a comprehensive manual of diseases were being planned and *those* referred to a certain class of *diseases* which were numerous in kind but were seldom encountered! Analogies break down, but the implication that infrequency (especially when compounded) depreciates importance, in the case at hand, is questionable.

Certain considerations, in fact, argue to the contrary.

Let me cite an example. I recently studied intensively, but on a small scale, two species of the genus *Froelichia* [1]); this side study was indicated while preparing a sectional flora of Iowa. It was apparent that almost no specimen could be justifiably identified as either *F. floridana* (Nutt.) Moq. or *F. gracilis* (Hook.) Moq., the two species reported from the general area. Almost without exception the examined specimens possessed characters which were either intermediate between the extremes described for the two species, or possessed characters of each the extremes, or both. Yet the many collectors who identified the scores of specimens available to me had forced each into the "pigeon-hole" of one or the other species without a single mention of abnormality, possible hybridization, etc. Such identifications (those involving the unequivocal application of a specific epithet to obviously taxonomically equivocal specimens) are illogical, hardly in keeping with principles of scientific honesty, and give rise to published floras which reflect no problems and catalogue species as neatly as they were before evolution was recognized.

Unfortunately, many floristic workers seem prone to ignore many of potential data they see in their collections unless they are aware others previously have seen the same thing. Such behavior was exemplified by identifications of two species of *Froelichia*; taxa for which published indications of their obvious critical nature apparently do not exist. Many other cases could be cited to support this contention.

Perusal of herbarium specimens of *Viola*, *Carya*, *Quercus*, etc., indicate more realistic identifications made with an awareness of the hybridization that repeatedly is reported in the literature. For many botanists, handicapped by time and/or library facilities, this awareness is usually derived from information in the regional manuals.

It seems to me that evidence of hybridization or other statements or opinions having taxonomic significance not only should be reported in a comprehensive regional manual, but can be a major value of such a publication by: (1) pointing to problems needing revisionary treatment; (2) tacitely directing field work toward closer analysis and coverage of problem taxa, thereby increasing critical study material in herbaria; (3) furthering the quality of study of specimens with resulting determinations and reports which more accurately reflect the biology of the specimens; (4) increasing general awareness that many of the taxa we handle are not so distinct and neatly delimited as the final decisions required by a key can lead us passively to accept.

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[1]) This problem is currently being studied in greater detail.

ZU EINIGEN BEMERKUNGEN VON F. WIDDER [1]

G. M. Schulze (Berlin-Dahlem)

Die Bemerkungen, die F. Widder (l.c. 128, 132) zum deutschen Wortlaut der Definition des Syntypus (Empfehlung 8 A des I.C.B.N. 1956) und in Hinblick auf die Anmerkung zum &-Zeichen (Anhang V, deutscher Wortlaut) macht, nötigen mich zu einer Stellungnahme.

Empfehlung 8 A

In Empfehlung 19 A des I.C.B.N. 1952 hatte ich den englischen Wortlaut "A syntype is one of two or more specimens...." mit "Ein Syntypus ist eins von zwei oder mehr Exemplaren...." übersetzt (vgl. deutsche Fassung, 1954). Die hieraus resultierende Definition des Syntypus war jedoch offensichtlich nicht klar. Von verschiedenen deutschen Benutzern des Code erhielt ich die Anfrage, ob unter "eins" nur "ein einziges" von zwei oder mehr Exemplaren zu verstehen sei, oder "jedes" von zwei oder mehr Exemplaren, wenn kein Holotypus angegeben wurde.

Im Laufe der gemeinsamen Arbeit des Herausgeber-Ausschusses am I.C.B.N. 1956 habe ich, um jegliches Mißverständnis auszuschließen, schriftlich bei den übrigen Mitgliedern des Ausschusses angefragt, ob unter "one of two or more specimens" entweder "jedes von zwei oder mehr Exemplaren" oder "eins von zwei oder mehr Exemplaren" zu verstehen sei. Bei der letztgenannten Fassung würde sich die Frage erheben: Welches Exemplar (von zwei oder mehr Exemplaren) ist der Syntypus? Und: Worin unterscheidet sich denn ein Syntypus von einem Lectotypus, der ja auch ein Exemplar (oder Element) ist, das aus dem Originalmaterial ausgewählt wird, wenn kein Holotypus angegeben wurde?

Herr R. Ross, British Museum, Natural History, Mitglied des Herausgeber-Ausschusses, hatte die Freundlichkeit, mir hierauf schriftlich mitzuteilen: "jedes..." is the correct translation of the English.

Da Widder der Ansicht ist, daß es "nur *einen* Syntypus eines Taxons geben" kann, soll offenbar der von ihm vorgeschlagene Ersatz des Wortes "jedes" durch "eines" oder "ein beliebiges" die Interpretation einer derartigen Ansicht über den Syntypus ermöglichen.

Natürlich hat Widder recht, daß es "zwar Isotypi und Paratypi" geben kann. Folgendes wird jedoch offensichtlich übersehen: Das mögliche Vorhandensein eines Isotypus (bzw. von Isotypen) setzt einen Holotypus voraus; ebenso setzt das mögliche Vorhandensein eines Paratypus (bzw. von Paratypen) einen Holotypus voraus; im Gegensatz zu diesen beiden Fällen setzt das mögliche Vorhandensein eines Syntypus (bzw. von Syntypen) voraus, daß *kein* Holotypus angegeben wurde oder daß zwei oder mehr Exemplare gleichzeitig als Typus bezeichnet wurden. Es kann also keine Rede davon sein, daß es "nur *einen* Syntypus eines Taxons geben" kann.

Anhang V

Hier bedauert Widder die Fußnote "Anmerkung zur deutschen Fassung" auf S. 304 bezüglich des Gebrauchs des &-Zeichens.

In der deutschen Fassung des I.C.B.N. 1954 hatte ich im Anhang VI nach eingehenden Besprechungen mit Kollegen eine ähnliche Fußnote gebracht.

Widder ist der Ansicht, daß meine Argumentierung ("Dieses Zeichen ist in der deutschen botanischen Literatur nicht üblich") keine zureichende Begründung für den Vorschlag sei, an Stelle des &-Zeichens "und" oder "u.", am besten das

[1]) Taxon 6(5): 127—132. 1957.

lateinische "et" zu gebrauchen. Widder ist der Meinung, daß das Zeichen "&" ein einheitliches, "in allen Sprachen und auf jeder Schreibmaschine" zu findendes Zeichen sei. Diese Behauptung nachzuprüfen, fehlt es mir leider an Zeit; jedoch wage ich die absolute Richtigkeit der Behauptung sehr zu bezweifeln. Widder schreibt ferner: "Es ist also nicht einzusehen, warum für einen Teil der Code-Benützer eine bereits vorhandene, eindeutige Regelung durch eine bei der Vielsprachigkeit des botanischen Schrifttums überhaupt undurchführbare Sonderbestimmung aufgehoben werden soll." Offenbar sieht also Widder in dem Satz "If several authors are cited, the name of the last should be preceded by the sign "&" (Appendix V, p. 300, unter 1.) eine "bereits vorhandene, eindeutige Regelung". Soll dies etwa bedeuten, daß man ihr wie einer "Regel" des eigentlichen Code folgen muß? Dies wäre eine Verkennung des Charakters von Appendix V. Ich stimme Widder bei, daß es wahrscheinlich besser gewesen wäre, der Fußnote vielleicht den Titel "Anmerkung des Verfassers zur deutschen Fassung" zu geben, wie dies ähnlich in der deutschen Fassung im Anhang VI, I.C.B.N. 1954 ("Anmerkung des Übersetzers") geschehen ist. Da aber in der englischen und französischen Fassung eine solche Fußnote fehlt, nahm ich an, daß sich das Vorhandensein einer solchen Fußnote in der deutschen Fassung bereits von selbst als eine Anmerkung des Verfassers charakterisiert. Die Anmerkung ist in Paris nicht beschlossen worden. In einem Schreiben vom 9.8.1956 an den Sekretär des Herausgeber-Ausschusses, Herrn Dr. Stafleu, bat ich um die Genehmigung, in der deutschen Fassung die Fußnote in dem Wortlaut, in dem sie jetzt vorliegt, bringen zu dürfen. Ich wies hierbei auch auf die für die deutsche Sprache vorhandenen "Vorschriften für den Schriftsatz" hin (vgl. Duden, Rechtschreibung der deutschen Sprache und der Fremdwörter. 14. Aufl., 1954, S. 69—79, "Vorschriften für den Schriftsatz." Diesen Vorschriften geht folgender Satz voran: "Für die Einheitlichkeit des Verfahrens bei der Herstellung von Drucksachen ist die allgemeine Beachtung folgender Vorschriften dringend notwendig"). Eine dieser Vorschriften behandelt den Gebrauch des Et-Zeichens (&). Hiernach darf dieses Zeichen nur bei Firmenbezeichnungen angewendet werden; sonst ist für "und" als Abkürzung "u." zu setzen (vgl. l.c. 74). In einem Antwortschreiben vom 16.8.1956 teilte mir Herr Dr. Stafleu die Zustimmung des Ausschusses mit. Er schrieb mir ferner, daß der Gebrauch von "&" englisch-amerikanisch sei und daß er im Index Nominum Genericorum dieses Zeichen nicht adoptiert habe, sondern lateinisch und daher vollkommen international "et" gebrauche.

BEMERKUNGEN ZU ARTIKEL 17—19 I.C.B.N. 1956

G. Buchheim (Berlin-Dahlem)

1. Art. 17 I.C.B.N. 1956 lautet: "Den Namen einer Ordnung leitet man von dem ihrer Typus-Familie ab und läßt ihn auf *-ales* auslauten". Widder, Taxon 6(5): 128. 1957, zitiert in seinen "Bemerkungen zum Code 1956" nur den zweiten Teil dieser Vorschrift und kommt deshalb zu falschen Schlußfolgerungen. Alle Ordnungsnamen, die sich nicht vom Namen der jeweiligen Typus-Familie herleiten lassen, sind regelwidrig, und zwar auch dann, wenn die Endung *-ales* lautet. Es entsprechen also z.B. folgende Namen nicht den Regeln: *Helobiae, Glumiflorae, Principes, Synanthae, Spathiflorae, Farinosae, Liliiflorae, Scitamineae, Microspermae, Verticillatae, Centrospermae, Myrtiflorae, Umbelliflorae, Contortae, Tubiflorae, Campanulatae* — aber auch *Rhoeadales* und *Parietales* sowie als Sonderfall *Opuntiales* (Name

der Typus-Familie: *Cactaceae*, nicht *Opuntiaceae*). So sehr das Aufgeben-Müssen dieser oft seit langer Zeit angewendeten Ordnungsnamen auch bedauert werden mag, die Regeln lassen keine andere Möglichkeit zu. Selbstverständlich ist damit auch WIDDERS Vorschlag hinfällig, die nicht von Familiennamen abgeleiteten Ordnungsnamen durch Anhängen der Endung *-ales* regelgemäß zu machen. Dies gilt auch für Versuche anderer Autoren, Namen einzuführen wie z.B. *Centrospermales* (ROTHMALER, Exkursionsfl. 1952; CORE, Pl. Taxon. 1955), *Contortales* (SAUVAGE et VINDT, Fl. Maroc. Sperm. 1. 1952), *Farinales* (CORE l.c.), *Helobiales* (ROTHMALER l.c.; CORE l.c.), *Liliiflorales* (ROTHMALER l.c.), *Scitaminales* (SMALL, Man. Southeast. Fl. 1933 — ob schon Fl. S.E.U.S. 1903? —; GLEASON, Ill. Fl. N.E.U.S. 1. 1952; CORE l.c.), *Synanthales* (CORE l.c.), *Tubiflorales* (SAUVAGE et VINDT l.c. 2. 1954; CORE l.c.).[1])

Schwierigkeiten in der Namenswahl für Ordnungen können dann entstehen, wenn eine derjenigen Familien als Typus dienen soll, für die laut Art. 11 und 18 eine alternative Benennung zugelassen ist. Hier wären theoretisch für jede Ordnung zwei Namen möglich (und werden auch z.T. nebeneinander angewendet, so *Palmales* neben *Arecales*, *Graminales* neben *Poales*). Es darf aber nur jeweils einer dieser Namen gebraucht werden, und zwar, wie mir F. A. STAFLEU auf eine Anfrage bestätigte (Brief vom 1.12.1956), derjenige, der zuerst regelgemäß veröffentlicht wurde. Freilich wird es immer viel Mühe bereiten, festzustellen, wann und wo ein Ordnungsname (und ebenso ein Familienname) erstmals gültig veröffentlicht wurde. Der Wortlaut von Art. 17 läßt übrigens nebeneinander Bildungen wie *Leguminosales* (ROTHMALER, Exkursionsfl. 1952[2]); Vorschlag WIDDER, Taxon 6(5): 130. 1957) und *Leguminales* (NEVILLE JONES, Taxon 4(8). 1955), *Cruciales* (LINDLEY, Nixus Pl. 1833; HUTCHINSON, Kew Bull. 1924) und *Cruciferales* (mir bisher nicht bekannt), *Guttales* (LINDLEY, Nixus Pl. 1833) und *Guttiferales* (LINDLEY, Veg. Kingd. 1847; BENTHAM et HOOKER f., Gen. Pl. 1. 1862), *Umbellales* (LINDLEY, Nixus Pl. 1833; BENTHAM et HOOKER f. l.c.) und *Umbelliferales* (mir ebenfalls nicht bekannt) zu, während der Name *Umbelliflorales* (ROTHMALER l.c.) zu den obengenannten regelwidrigen Bildungen gehört. Es wäre deshalb wünschenswert, wenn in der nächsten Auflage des Code die Formulierung "The name of an order is taken from that of its type family...." präzisiert würde, damit die Möglichkeit gegeben ist, eine der beiden Varianten zu verwerfen.

Bei dieser Gelegenheit sei erwähnt, daß Art. 17 auch in anderer Hinsicht einer Ergänzung bedarf. Die Rangstufe, die im Code (cf. Art. 3 und 4) als "ordo" (order, ordre, Ordnung) bezeichnet wird, ist von verschiedenen Autoren anders benannt worden. Die Bezeichnung "Cohors" ist sogar an Stelle von "ordo" in den "Lois" von 1867 vorgesehen. Andere derartige Synonyma sind z.B. "Classis" (JUSSIEU, Gen. Pl. 1789; BARTLING, Ord. Nat. Pl. 1830; ENDLICHER, Gen. Pl. 1836—40; BRONGNIART, Enum. Gen. Pl. Cult. Mus. Hist. Nat. Paris 1843; MEISSNER, Pl. Vasc. Gen. 1843), "Nixus" (LINDLEY, Nixus Pl. 1833), "Alliance" (LINDLEY, Veg. Kingd. ed. 2, 1847), "Reihe" (EICHLER, Syllabus ed. 3, 1883 — ed. 1 et 2 non vidi —; ENGLER, Führer Bot. Gart. Breslau 1886 usw.). Da im Code ein entsprechender Hinweis fehlt, erhebt sich die Frage, wie diejenigen Namen zu behandeln sind, die mit einer dieser Rangstufenbezeichnungen veröffentlicht wurden. Als beste Lösung erscheint mir, diese Namen als Ordnungsnamen anzuerkennen. Sie sind damit denselben Bestimmungen wie die Namen der Ordnungen unterworfen. Auf diese Weise werden z.B. alle Namen ausgeschaltet, die nicht von demjenigen ihrer Typus-Familie abgeleitet sind oder eine unrichtige Endung führen. Dies trifft u.a. für alle mit der Bezeichnung

[1]) Mit Ausnahme von *Scitaminales* erfüllen alle anderen Namen auch sonst nicht die Bedingungen gültiger Veröffentlichung (Beschreibung fehlt oder nicht in Latein).

[2]) Name nicht gültig veröffentlicht (keine lateinische Beschreibung).

"Classis" veröffentlichten Namen der obengenannten Autoren zu. Andererseits wird durch diese Maßnahme verhindert, daß eine Vielzahl von Namen geändert werden müßte. Ich schlage deshalb vor, in den Text von Art. 17 als Zusatz aufzunehmen [3]): "Namen, die mit der Rangstufenbezeichnung "Cohors", "Nixus", "Alliance" oder "Reihe" an Stelle von "Ordo" (order, ordre, Ordnung) veröffentlicht sind, gelten als Namen von Ordnungen veröffentlicht und sind denselben Bestimmungen wie diese unterworfen."

"Names published with a term denoting the rank such as "Cohors", "Nixus", "Alliance", or "Reihe" instead of "Ordo" (order, ordre, Ordnung) are treated as having been published as names of orders and are subject to the same provisions as such names".

Durch diese Formulierung wird denjenigen Autoren nicht vorgegriffen, die "Cohors" oder "Reihe" als intermediäre Rangstufe zwischen Subclassis und Ordo ansehen (cf. Lindley, Nixus Plantarum 1833, Ponce de Leon et Alvarez, Taxon 2(7): 175. 1953 bzw. Eichler, Blütendiagramme 1. 1875, 2. 1878).

Gleichzeitig sei auch auf den Artikel "Ordnungen und Reihen (Ordres et Séries)" von Gams, Taxon 3(6): 198. 1954, hingewiesen. Wie aus dem Obengesagten deutlich hervorgeht, teilt der Verf. dieser Zeilen nicht die Ansicht von Gams, Ordnung und Reihe als zwei verschiedene Rangstufen zu betrachten. Der französische Wortlaut enthält zudem einen schwerwiegenden Irrtum, indem "Reihe" mit "Série" übersetzt wird. "Série" ist aber im Französischen die Rangstufenbezeichnung für lat. "series" (deutsch "Serie"), also für eine Unterabteilung einer Gattung (cf. Internat. Rules Bot. Nomencl. ed. 3. p. 28. 1935). Es müßte also, um Verwechselungen zu vermeiden, erst für "Reihe" ein neuer lateinischer, englischer, französischer usw. Fachausdruck geschaffen werden. Eine solche Maßnahme empfiehlt sich aber keineswegs, ganz abgesehen davon, daß ja mit Ordnung und Unterordnung zwei zwischen Klasse bzw. Unterklasse und Familie liegende Rangstufen zur Verfügung stehen. Sollten sich diese beiden Rangstufen als nicht ausreichend erweisen, so ist es gemäß Art. 4 jederzeit möglich, weitere Rangstufen einzuschalten. Dies ist z.B. bei Gundersen, Fam. Dicot. 1950, der Fall, der "Ordnungsgruppen" aufstellt und diese mit Namen wie *Magnoliflorae*, *Cistiflorae*, *Thea Group*, *Ulmus Group* usw. bezeichnet (infolge fehlender Beschreibung sind diese Namen nicht gültig veröffentlicht). Dasselbe gilt für die obengenannten Beispiele, bei denen "Cohors" bzw. "Reihe" als zusätzliche Rangstufen zwischen Ordnung und Unterklasse bzw. Klasse fungieren.

2. In Artikel 18 Anmerkung 2 wird ausdrücklich bestimmt, daß es sich bei den Familiennamen *Palmae*, *Gramineae*, *Cruciferae*, *Leguminosae*, *Guttiferae*, *Umbelliferae*, *Labiatae* und *Compositae* um Ausnahmen handelt. Man darf sie als in dieser Schreibweise geschützte Familiennamen betrachten. Der Vorschlag Widders (Taxon 6(5): 129. 1957), die betreffenden Namen mit der Endung *-aceae* zu versehen, bringt abgesehen von der formalen Gleichheit der Endungen keinen Vorteil; denn auch in diesem Fall müßten die betr. acht Familiennamen weiterhin als Ausnahmen geschützt werden, da ihre Namen sich nicht vom Namen der Typusgattung bzw. eines Synonyms dieses Namens ableiten lassen (siehe Beispiel *Papilionaceae*). Wie Widder selbst zugibt, haben sich die von ihm vorgeschlagenen Namensformen bisher nicht eingebürgert, obwohl schon verschiedene Autoren ihren Gebrauch empfohlen haben. So finden sich z.B. bei Lindley, Veg. Kingd. ed. 2. 1847. die beiden Familiennamen *Palmaceae* und *Graminaceae*. Andererseits verwendet dieser Autor im gleichen Werk für die übrigen sechs Familien gemäß der Vorschrift gebildete Namen (*Brassicaceae*, *Fabaceae*, *Clusiaceae* [4]), *Apiaceae*, *Lamiaceae*, *Asteraceae*). Ich

[3]) Proposal no. 12 submitted to the 9th International Botanical Congress, Montreal 1959.

[4]) Die *Hypericaceae* bilden eine selbständige Familie.

möchte hier zur Frage der alternativen Benennung keine Stellung nehmen; ich glaube aber kaum, daß sich in Zukunft eine von WIDDER auf der Basis seines Vorschlags gewünschte einheitliche Regelung durchsetzen wird.

Wie GAMS, Taxon 3(6): 198. 1954, zurecht bemerkt, ist die Rangstufenbezeichnung "ordo" von zahlreichen Autoren für "familia" angewendet worden, darunter auch in den "Lois" von 1867. Nach allgemeiner Praxis werden solche Namen als Namen von Familien anerkannt. Es wäre gut, wenn dies durch Aufnahme eines Zusatzes zu Art. 18 offiziell bestätigt würde.

Vorschlag (in Parallele zu dem Vorschlag zu Art. 17) [5]:

"Namen, die mit der Rangstufenbezeichnung "Ordo" (order, ordre, Ordnung) an Stelle von "Familia" (family, famille, Familie) veröffentlicht sind, gelten als Namen von Familien veröffentlicht und sind denselben Bestimmungen wie diese unterworfen."

"Names published with the term denoting the rank "Ordo" (order, ordre, Ordnung) instead of "Familia" (family, famille, Familie) are treated as having been published as names of families and are subject to the same provisions as such names."

3. Der Vorschlag WIDDERS zu Art. 19 (Taxon 6(5): 130. 1957) ist mir nicht klar. Soll damit gemeint sein, daß Namen von Unterfamilien wie *Graminoideae*, *Guttiferoideae* oder *Compositoideae* erlaubt sein sollten? Auch der Name *Papilionoideae*, von WIDDER l.c. auf p. 130 oben rechts aufgeführt, entspricht nicht den Regeln und ist durch *Lotoideae* REHDER zu ersetzen. Für eine Ausnahmeregelung für Namen von Unterfamilien liegt meines Erachtens keine Notwendigkeit vor.

Zu 1. Nach Abschluß des Manuskriptes stieß ich auf die von DALLA TORRE et HARMS in Gen. Siph. (1900—1907) an Stelle von Ordnung bzw. Unterordnung gebrauchten Bezeichnungen "Series" bzw. "Subseries". Es handelt sich dabei um eine lateinische Übersetzung der von EICHLER, ENGLER usw. angewendeten deutschen Ausdrücke "Reihe" bzw. "Unterreihe". Seit Erscheinen der 1. Ausgabe der "Règles Internationales de la Nomenclature Botanique" im Jahre 1906 sind die Bezeichnungen "Series" bzw. "Subseries" für zwei Rangstufen reserviert, die zwischen Untersektion und Art liegen (Art. 12). Bei den in dem obengenannten Werk aufgeführten Ordnungs- und Unterordnungsnamen handelt es sich nicht um Erstveröffentlichungen; die betr. Namen sind bereits vorher an anderer Stelle gültig veröffentlicht worden. Deshalb bleibt ihr Status durch die spätere Anwendung einer falschen Rangstufenbezeichnung unberührt.

THE TYPIFICATION OF THE GENERIC NAME CALLITRIS VENT.

A. A. Bullock (Kew)

The generic name *Callitris* (*Cupressaceae*) first appeared and was validly published in Ventenat's *Decas Generum Novorum*, 1808, in which ten new genera were described. *Callitris* Vent. was described on page ten and was evidently based upon a single species, — "*Arbor sempervirens* Australasiae", — for which, however, no specific epithet was provided.

The generic name next appeared in synonymy under *Frenela* Mirb. in Mirbel's essay on the geographical distribution of the Coniferae (Mém. Mus. Hist. Nat. Paris 13: 74. 1825), but there was no description and Mirbel's generic name is clearly an illegitimate nomenclatural synonym of *Callitris*. Mirbel listed eleven species, one from North Africa, nine from Australia and one from Tasmania. The first of these he called *F. fontanesii* Mirb., based upon *Thuja articulata* Desf. [1]). The remaining

[5]) Proposal no. 13 submitted to the 9th International Botanical Congress, Montreal 1959.

[1]) Recent authors refer this species to the genus *Tetraclinis* Mast. (1893). — A. A. B.

species, with two exceptions, were given specific epithets, without description, based largely upon manuscript names by Cunningham and Robert Brown. One of these was "8. *Ventenatii* Br. sub. Callitri" under which was cited "Thuja australis Desf.?"

In 1826 L. C. Richard's "Mémoires sur les Conifères et les Cycadées" appeared and in the first memoir (p. 141) *Callitris* was again described and the name was correctly attributed to Ventenat, with the additional citation "R. Brown, *in litt.*" Richard also cited Mirbel's illegitimate name, "correcting" the spelling to "*Fresnelia*". He was in error, however, in stating "Ce genre a été établi par Ventenat pour le *Thuya* [sic] *articulata* de Desfontaines", since Ventenat clearly stated that his genus was based upon an Australian plant. In Richard's treatment of the species, *Thuja articulata* Desf. was described (p. 46, *t. 8, fig. 1*) as *Callitris quadrivalvis* and the name was quite wrongly attributed to Ventenat. In addition Richard described *Callitris rhomboidea* (p. 470, *t. 18. No. 1*) (attributed to R. Brown) and *C. oblonga* (p. 49, *t. 18. No. 2*) (based upon *C. fruticosa* R. Brown mss). Both of these plants were sent to Richard by Brown, and both came from Australia, but there is no evidence that either of them was the plant described by Ventenat.

In 1833, Brongniart (Ann. Sc. Nat. 30: 187, 189) included in *Callitris* the *C. quadrivalvis* L. C. Rich. (*Thuja articulata* Desf.) as well as *C. rhomboidea* R. Br. ex L. C. Rich. and *C. oblonga* L. C. Rich., but J. D. Hooker seemed (Lond. Journ. Bot. 4: 142. 1845) inclined to exclude the Australian species from *Callitris* and follow Richard in typifying the name by *C. quadrivalis*, as Spach (Hist. Nat. Vég. Phan. 11: 342) had done in 1842.

Endlicher's important *Synopsis Coniferarum* appeared in 1847 and he again (p. 35) used *Frenela* Mirb. ("*excl. sp. atlant.*"), listing no fewer than 18 species from Australia and Tasmania. Only eight of these were described, the remainder being "Species indescriptae, penitus dubiae." He included the two Australian species described by Richard and the one described by Spach, *Frenela triquetra* (Lodd.) Spach, based upon *Cupressus triquetra* Lodd. The synonymy of this species included *Frenela ventenatii* Mirb. (*nomen nudum*) and *Callitris cupressiformis*, a name attributed to "Ventenat, Nov. Gen. Decad. 10". This name, however, had not previously appeared and one is led to assume that it was found by Endlicher in a manuscript annotation. Mirbel's epithet "*ventenatii*" (which he had attributed to "Br. sub. Callitri"), lends colour to the idea that this was actually the plant described by Ventenat and should be designated as the type of the generic name *Callitris*.

Parlatore (DC. Prodr. 16(2): 447. 1868) maintained Mirbel's generic name *Frenela* and included *Callitris cupressiformis*, *Frenela ventenatii*, *F. triquetra* and other names in the synonymy of *F. rhomboidea* (L. C. Rich.) Endl. The same treatment was adopted by Bentham (Fl. Austral. 6: 237) in 1873, and by Baker and Smith (Pines of Australia, 220) in 1910, who adopted the generic name *Callitris*.

In her recent revision of *Callitris* (Contr. N.S.W. Nat. Herb. 2(5): 363—392. 1956) Miss Joy Garden did not indicate the type of the generic name, and she has not noted the valid publication of the name *Callitris cupressiformis* by F. von Mueller in 1888 (Key Syst. Vict. Pl. 1: 402). Her treatment of *C. rhomboidea*, however, follows closely that of Baker and Smith.

This species now boasts an imposing list of synonyms, of which the oldest appears to be *Thuja australis* Poir. Poiret's epithet has, however, already been used under *Callitris* for *C. australis* (Pers.) Sweet, based upon *Cupressus australis* Pers., and *Callitris australis* R. Br. ex Hook. f. is a later homonym.

The correct name for the species appears to be *Callitris rhomboidea* R. Br. ex L. C. Rich. (1826) and it is here proposed that this should be adopted as the type-species of the generic name *Callitris* Vent. (1808). The same choice was indicated by Masters in 1893 (Journ. Linn. Soc. Bot. 30: 15).

NINTH INTERNATIONAL BOTANICAL CONGRESS

FIRST CIRCULAR

The Ninth International Botanical Congress will be held in Montreal, Canada, from August 19 to 29, 1959, at McGill University and the University of Montreal. The program will include papers and symposia related to all branches of pure and applied botany. A first circular giving information on program, accommodation, excursions, and other detail will be available early in 1958. This circular and subsequent circulars including application forms will be sent only to those who write to the Secretary-General asking to be placed on the Congress mailing list:

Dr. C. Frankton, Secretary-General, IX International Botanical Congress, Science Service Building, Ottawa, Ontario, Canada.

NOMENCLATURE SECTION

DATES

The delegates to the Nomenclature Section of the Ninth Congress will be welcomed in Montreal at 10 a.m. on Sunday, August 16, 1959, at a brief meeting. The rest of that day will be devoted to meetings of the Nomenclature Committees. The main Nomenclature Session will start on Monday morning, August 17 and end on the afternoon of August 19. Dates for the Congress itself are August 19 to August 29 but August 19 is reserved for registration.

BUREAU OF NOMENCLATURE

President: J. Rousseau, National Museum of Canada, Ottawa, Canada.

Vice-president: R. C. Rollins, Gray Herbarium of Harvard University, 22 Divinity Ave., Cambridge 38, Mass. — U.S.A.

Recorder: B. Boivin, Botany and Plant Pathology Division, Science Service, Dept. of Agriculture, Ottawa, Canada.

Rapporteur-général: J. Lanjouw, I.A.P.T., Lange Nieuwstraat 106, Utrecht, Netherlands.

Vice-Rapporteur: F. A. Stafleu, I.A.P.T., Lange Nieuwstraat 106, Utrecht, Netherlands.

PROPOSALS

Proposals regarding the International Code of Botanical Nomenclature (1956) must be submitted to the Rapporteur-général, Dr. J. Lanjouw, before 1 September 1958. All proposals will be published in Taxon.

The nomenclature proposals will be presented to the Congress by the Rapporteur-général, in a "Synopsis of Proposals" to be published in December 1958.

OFFICE OF THE RAPPORTEUR

International Bureau for Plant Taxonomy and Nomenclature, Lange Nieuwstraat 106, Utrecht, Netherlands. *All proposals on nomenclature should be sent to this address.*

9ME CONGRES INTERNATIONAL DE BOTANIQUE

PREMIERE CIRCULAIRE

Le Neuvième Congrès International de Botanique sera tenu à Montréal, Canada, du 19 au 29 août 1959, à l'Université McGill et à l'Université de Montréal. Le programme comprendra des communications et des symposiums dans toutes les branches de la botanique pure et appliquée.

La première circulaire contenant les renseignements sur le programme, le logement, les excursions et autres détails, paraîtra au début de 1958. Cette circulaire, ainsi que celles qui suivront, renfermant des formules de demande, ne seront envoyées qu'aux personnes qui en feront la demande au Secrétaire-Général:

Dr. C. Frankton, Secretary-General, IX International Botanical Congress, Science Service Building, Ottawa, Ontario, Canada.

SECTION DE NOMENCLATURE

DATE

Les délégués de la Section de Nomenclature du 9me Congrès seront accueillis à Montréal à 10 h. le dimanche 16 août 1959 au cours d'une brève réunion. Le restant de la journée sera consacré aux réunions des Comités de Nomenclature. La session plénière de la Nomenclature débutera le lundi matin 17 août et se terminera au cours de l'après-midi du 19 août. Les dates du Congrès proprement dit, sont du 19 août au 29 août. Toutefois, le 19 août sera réservé aux inscriptions.

BUREAU DE LA NOMENCLATURE

Président: J. Rousseau, National Museum of Canada, Ottawa, Canada.

Vice-président: R. C. Rollins, Gray Herbarium of Harvard University, 22 Divinity Ave., Cambridge 38, Mass. — U.S.A.

Secrétaire: B. Boivin, Botany and Plant Pathology Division, Science Service, Dpt. of Agriculture, Ottawa, Canada.

Rapporteur-général: J. Lanjouw, I.A.P.T., Lange Nieuwstraat 106, Utrecht, Netherlands.

Vice-Rapporteur: F. A. Stafleu, I.A.P.T., Lange Nieuwstraat 106, Utrecht, Netherlands.

PROPOSITIONS

Les propositions relatives au Code International de Nomenclature Botanique (1956) doivent être soumises au Rapporteur-général, Dr. J. Lanjouw, avant le 1er septembre 1958. Toutes les propositions seront publiées dans Taxon.

Les propositions de nomenclature seront présentées au Congrès par le Rapporteur-général sous la forme d'un "Synopsis des Propositions" et seront publiées dans le courant de décembre 1958.

BUREAU DU RAPPORTEUR

Bureau International de Taxonomie et Nomenclature Botanique, Lange Nieuwstraat 106, Utrecht, Netherlands. *Toutes les propositions sur la nomenclature doivent être envoyées à cette adresse.*

THE NAMES OF THE MORNING GLORIES CULTIVATED AND NATURALISED IN EAST AFRICA

B. Verdcourt (East African Herbarium, Nairobi, Kenya)

The following species of Morning Glory are cultivated in East Africa (using the names accepted by students of the Convolvulaceae at present): — *Ipomoea tricolor* Cav., *I. congesta* R. Br., *I. purpurea* (L.) Roth and *I. hederacea* Jacq. Another species which comes into the discussion is *I. nil* (L.) Roth. These species have long been badly misnamed in most herbaria but we are not concerned with that. The experts on the family (Hallier f., van Ooststroom, etc.) interpret or interpreted these names in a given way and a recent perusal of the specimens in the Linnean Herbarium concerned with the three Linnean names, shows that these specimens at least are not in accordance with modern interpretations. It will be as well to set down the currently accepted interpretations with basic synonymy [1]) before discussing the matter further. The name *I. tricolor* Cav. appears to be correctly interpreted although I have not seen the type. The species will be lettered and the letter used when the actual plant itself and not the name is meant.

A. **Ipomoea congesta** R. Br., Prodr. 485 (1810), (type seen at BM).

C. roseus Mill., Gardener's Dict. ed. 8, No. 18 (1768); Britten, Journ. Bot. 47: 46 (1909), (type seen at BM).

C. acuminatus Vahl, Symb. Bot. 3: 26 (1794), (type not found at C).

Ipomoea cathartica Poir. *in* Lamark., Enc. Suppl. 4: 633 (1816), (type seen at P).

I. leari Paxton, Mag. Bot. 6: 267 (1839).

This is the most commonly cultivated Morning Glory with showy flowers. *I. leari* is a densely hairy variant but scarcely specifically distinct. The sepals are uniformly narrowed to the apex, rather wide and finely pubescent all over. Neither *roseus* nor *acuminatus* can be used with *Ipomoea* legitimately due to earlier homonyms.

B. **Ipomoea hederacea** Jacq., Collect. 1: 124. *t. 36* (1787).

Convolvulus hederaceus L., Sp. Pl. 154 (1753).

Ipomoea githaginea [Hochst. *ex*] A. Rich., Tent. Fl. Abyss. 2: 65 (1851), (type seen).

This is a common N. American species. The sepals are narrowly linear-lanceolate, abruptly narrowed above and bristly below. The sepals and corolla are much longer than in the common Old World species. Van Ooststroom (Blumea 3: 497. 1946), states that the species is rarely found in the Old World and that most records are due to confusion with other species. I have however seen very typical specimens from Tanganyika which accord exactly with the Linnean specimens. Jacquin did not cite the Linnean reference.

C. **Ipomoea purpurea** (L.) Roth., Bot. Abh., 27 (1787).

Convolvulus purpureus L., Sp. Pl. ed. 2. 219 (1762).

This is a common species of waste places and has linear-lanceolate sepals which are not conspicuously narrowed above and are bristly pilose for the lower half or third.

D. **Ipomoea nil** (L.) Roth., Cat. Bot. 1: 36 (1797).

Convolvulus nil L., Sp. Pl. ed. 2. 219 (1762).

Ipomoea scabra Forsk., Fl. Aeg.-Arab. 44 (1775), (type seen at C).

I. hederacea non Jacq. *auctt.*

A plant very similar to the last but with sepals much narrowed above. It has been considered synonymous by several people. It differs from *I. hederacea* Jacq. in its much shorter sepals and corollas.

Whilst I was in England in 1955 I examined the Convolvulaceae in the Linnean herbarium. These had already been examined by Hallier f. without comments. I cannot believe that he did not notice the discrepancies but probably did not mention them for fear of disturbing long-established names. It is certain however that someone will one day unearth the problem so it must be investigated thoroughly once and for all. Dr. van Ooststroom is completely against altering the names and I would prefer to find some really valid reason for conserving them.

My study of the Linnean specimens indicated that those labelled *Convolvulus purpureus* (218.10) and *Convolvulus nil* (218.9) did not agree at all with current interpretations. The specimen of *C. purpureus* was clearly species A. and that of *C. nil* seemed to be species C. The specimen of

[1]) van Ooststroom gives the full synonymy in Blumea 3: 495 ff. (1940).

Convolvulus hederaceus (218.8) clearly accorded with species B. Obviously if these specimens are considered the type specimens some very conflicting name changes would result. To confirm my findings I decided to ask another botanist to examine the specimens. I am indebted to Mr. J. P. M. Brenan for his assistance in independently examining the specimens and comparing them with specimens I had chosen as being typical of species A, B, C, & D. *Burtt* 3727 (Shinyanga, Tanganyika), he agreed was exactly identical with Linnean sheet 218.8 and I consider this to be typical of species B. *Verdcourt* 75 (Amani, Tanganyika) is species A; Mr. Brenan agrees that it is a fairly good match of Linnean sheet 218.10 save that the Linnean sheet shows no trilobed leaves, the corolla is 1 cm shorter and the indumentum a little different, nevertheless he "would be quite happy to agree that 218.10 represents what has been called *I. leari* or *I. congesta*". *Napier* 1517 which van Ooststroom, who has seen the specimen, and I, considered to be C, he was sure was not equal to Linnean specimen 218.9 and commented as follows: "The stems and leaves and their indumentum, also the corollas, match well. Rather long setiform hairs present on the peduncles of 218.9 are absent in *Napier* 1517; the shorter 'understorey' hairs are present in both. The long hairs at the base of the calyx are arcuate-patent in *Napier* 1517 but suberect in the Linnean specimen. The sepals of the Linnean specimen are about 1.25 mm wide about half-way up while those of *Napier* 1517 are 2.5 mm wide in the same position. I doubt whether this be what has been called *purpurea*. It looks very like certain aberrant specimens of *I. nil*, e.g. *Wright* 1647, Cuba; and *Hb. Prior* 597, Jamaica. The sepals seem too long and narrow for those of *I. purpurea auct.* and their indumentum is not the same, and the corolla of the Linnean specimen with its prominent rounded lobes is peculiar ..... I have looked at a fairly wide range of *Ipomoea purpurea auct.* and I feel pretty sure that *Convolvulus nil* is not conspecific".

The types of the names must now be discussed. The type of *Convolvulus hederaceus* L. does not really matter since it is not the basinym of Jacquin's *Ipomoea hederacea*. This latter must be treated as a new name which of course immediately invalidates any new combination involving the earlier Linnean epithet. Jacquin's figure matches the usual conception associated with the name and this species need no longer concern us. It may be mentioned that the Linnean specimen was certainly in the Linnean Herbarium in 1753 and I choose it as the lectotype of *Convolvulus hederaceus* L. and exclude the references if necessary. The description in Sp. Pl. ed. 2 is non-committal and the Hort. Cliff. reference gives little information. Dr. van Ooststroom believes that the reference Dillenius (plate 83 f. 96) depicts species D. The other two names are much more difficult.

Convolvulus purpureus L., Sp. Pl. ed. 2. 219 (1762). The description is accompanied by the following citations:

"Convolyulus [sic] calycibus tuberculatis pilosis. *Virid. cliff.* 18. *Hort. ups.* 38. *Gron. virg.* 141.

Convolvulus purpureus, folio subrotundo. *Bauh. pin.* 295. *Ehret. pict.* 7. *f.* 2.

β. Convolvulus cæruleus minor, folio subrotundo. *Dill. elth.* 97. *t.* 82. *f.* 94.

γ. Convolvulus folio cordato glabro. *Dill. elth.* 100 *t.* 84. *f.* 97.

Habitat in America."

Convolvulus nil L., Sp. Pl. ed. 2. 219 (1762). The description is accompanied by the following citations:

"Convolvulus cæruleus, hederaceo anguloso folio. *Bauh. pin.* 295. *Bauh. hist.* 2. *p.* 164. *Dill. elth.* 96. *t.* 80. *f.* 91 & 92.

Habitat in America."

The sheet of *Convolvulus purpureus* has nothing on it to show if it was in the Herbarium at the time of its description. The sheet of *C. nil* is marked H.U. but no Hort. Upsal. reference is given with the description. It is possible the specimen was taken from the Uppsala garden between 1762 and 1767 after the date of description but it seems more probable that it was already in by 1762.

The descriptions of *C. nil* and *C. purpureus* are non-committal and are really scarcely adequate for comparison with specimens although the remark under *C. purpureus* by Linnaeus "fructibus cernuus, pedicellis incrassatis" applies well to species C. Dr. van Ooststroom has looked at the pre-Linnean plates and of those cited under *C. nil* Bauhin's plates do not help much, but he believes Dillenius' plate 80, f. 92 is *I. nil* and that f. 91 is a form of that species. He suggests that the plate 80, f. 91 is designated the lectotype and the Linnean specimen set aside although as previously mentioned Mr. Brenan thought it likely that the Linnean

specimen is a form of *I. nil* in any case. In the case of *C. purpureus* the Virid. Cliff., Hort. Ups., Gron. Virg. and Bauhin references do not help. Dillenius t. 82 f. 94 is propably *I. hederacea* but t. 84 f. 97 is *I. purpurea,* and could be selected lectotype. By selecting the Dillenius plates the names could be preserved in their present usage which dates at least to Roth. The Linnean specimens (particularly that of *C. purpureus*) should not be used for type purposes.

It would be appreciated that, if any oppositions to these proposals are held by readers, they communicate them to the author.

Addendum to typification of the subdivisions of Ipomoea

With regard to my note on this subject (*antea* p. 150—152) Mr. Bullock of Kew has kindly drawn my attention to a much earlier selection of *Ipomoea pes-tigridis* L. as type species of the genus *Ipomoea* by House in Ann. N.Y. Acad. Sci. 18: 181 (1908). Will anyone knowing of any other type selections concerning this genus or divisions of it please communicate them.

NOMINA CONSERVANDA PROPOSITA

(32). Proposal for the conservation of the generic name 3657 **Lotononis** (DC.) Eckl. & Zeyh. (Leguminosae) Enum. Pl. Afr. Austr. 176 (Jan. 1836) versus *Amphinomia* DC. (Leguminosae) Prodr. 2: 522 (1825) and *Leobordea* Del. (Leguminosae) *in* Laborde Voy. Arab. Petr. 86 (1830 or 1833).

Lotononis (DC.) Eckl. & Zeyh. (Leguminosae), *nom. cons. prop.*

Adopted by: Bentham, Lond. Journ. Bot. 2: 594 (1843); Harvey, Fl. Cap. 2: 47 (1862); Benth. & Hook. f., Gen. Pl. 1: 476 (1865); Baker, Fl. Trop. Afr. 2: 5 (1871); Boissier, Fl. Or. 2: 30 (1872); Baker, Fl. Brit. India 2: 64 (1876); Engler & Prantl, Nat. Pflanzenfam. 3(3): 220 (1893); Dümmer, Trans. Roy. Soc. S. Afr. 3: 276 (1913); Bak. f., Leg. Trop. Afr. 14 (1926); Post & Dinsmore, Fl. Syria & Palestine ed. 2. 1: 299 (1932); Burtt Davy, Man. Flor. Transvaal 2: 384 (1932); Schwartz, Fl. Trop. Arab. 93 (1939); Komarov & Šiškin, Fl. U.S.S.R. 11: 44 (1945); Phillips, Gen. S. Afr. Flow. Pl. ed. 2. 405 (1951); Andrews, Fl. Sudan 2: 211 (1952); Wilczek, Fl. Belg. Congo 4: 273 (1953) and many other works.

Type species: *Lotononis vexillata* (E. Mey.) Eckl. & Zeyh. (*Ononis prostrata* L., *Lotononis prostrata* (L.) Benth.) (proposed here).

Amphinomia DC. (Leguminosae), *nom. rej. prop.*

Adopted by: Pau, Mem. Mus. Ci. Nat. Barcelona Ser. Bot. 1(1): 35 (1922); Hayek, Rep. Spec. Nov. Beih. 30(1): 891 (1926); Bornmueller, Rep. Spec. Nov. Beih. 89: 147 (1938); Font Quer & Rothm., Broteria Ser. Trimestr. 9: 149 (1940); Maire, Bull. Soc. Hist. Nat. Afr. Nord 32: 209 (1941); Cufodontis, Bull. Jard. Bot. État, Bruxelles, 25: 227 (1955); Schreiber, Mitt. Bot. Staatssamm. München 16: 286 (1957).

Type species: *Amphinomia decumbens* (Thunb.) DC.

Leobordea Del. (Leguminosae), *nom. rej. prop.*

Adopted by: four or five authors as a genus distinct from *Lotononis* but by no author as a name to be used in place of *Lotononis.*

Type species: *Leobordia lotoidea* Del.

Discussion: The proposal by Janchen in Rep. Spec. Nov. 52(2): 144—161 (1943) that *Lotononis* should be conserved was neither accepted nor rejected by the Stockholm congress in 1950, being simply listed as a proposal. It does not seem to have been discussed at the Paris congress, perhaps because the evidence in its favour was set out only in the most meagre form. It therefore seems advisable to set out the facts of the case fully here. Decandolle based his *Amphinomia,* which he placed among the *Leguminosae incertae sedis,* on Thunberg's description and plate of *Connarus decumbens* (Roem. Arch. Bot. 1, 1 (1796)), without seeing a specimen. Bentham at the end of his account of *Lotononis* in the genera plantarum says "*Amphinomia* .... ex icone et descr. videtur *Lotononis polycephalus* Benth. v. species ei affinis". This statement, so full of doubt when compared with Bentham's usual clear 'Species A *est* Species B', seems the sole basis for the treatment of *Amphinomia* as an undoubted synonym for *Lotononis* in the Index Kewensis and later works. As far

as can be ascertained none of the authors who have transferred species of *Lotononis* to *Amphinomia* have themselves studied *A. decumbens.* A comparison between *Lotononis polycephalus* (E. Mey.) Benth. (of which an isotype is at Kew) and the plate of *A. decumbens* shows that the two cannot possibly be conspecific. There is, in fact, no species of *Lotononis* in the Kew herbarium which this plate could be taken to represent; in particular none of them have the curious transversely wrinkled 1-seeded fruits, with persistent styles, of *A. decumbens.* Apart from its fruit (which is smooth and several seeded, without a persistent style) *L. oxyptera* (E. Mey.) Benth. shows a definite superficial resemblance to Thunberg's plate, and it may be that Bentham's '*L. polycephala*' is a *lapsus calami* for *L. oxyptera.* It is interesting and important that, after revising all the S. African species of *Lotononis,* Dümmer, l.c. p. 330, states that E. Meyer was right in describing this species as a *Crotalaria,* though other botanists disagree and, following Bentham and Harvey, retain it in *Lotononis.*

There is thus much doubt whether *A. decumbens* represents any species of *Lotononis.* In spite of Bentham's opinion and that of Decandolle (whose very name *Amphinomia* expresses his doubt about the plant) it is not even certain that *Amphinomia* is Leguminous. Printz in Pl. Rar. Afr. 13 (1760), apparently without dissecting a flower, described it as *Hermannia triphylla* and Thunberg, who did dissect it, does not describe the corolla as papilionaceous and ascribes the species to *Connarus.* Since then no one seems to have examined the type. It is also noteworthy that Thunberg does not include his own *Connarus decumbens* in his Flora Capensis, which suggests that he may have suspected that the type did not come from the Cape, (in which case it would be most unlikely to be a *Lotononis*).

Even should evidence be found that *Amphinomia decumbens* is definitely a species of *Lotononis* it would still be preferable to conserve *Lotononis* because of its extensive use (for some 130 accepted species) and the obscurity of *Amphinomia* with less than a dozen binomials published up to date. It should be noted that even those authors who do use *Amphinomia* do so often only against their will, because they believe that they are compelled to by the rules. Thus Maire (1941), while making a new combination in *Amphinomia,* at the same time proposes that *Lotononis* should be conserved (presumably the war prevented this proposal receiving the attention which it deserved) while Schreiber (1957) expresses his surprise that *Lotononis* has not been conserved.

There can be no doubt that, at the moment, with *Amphinomia 'incertae sedis'*, and *Lotononis* not yet conserved, *Leobordea* is the correct name for the whole genus. In fact, however, no botanist has used *Leobordea* in this sense, the few who do use it do so for a genus distinct from *Lotononis* and not to replace *Lotononis.* Bentham (1843) states the reason for this, explaining that although *Leobordea* is prior to the definite publication of *Lotononis* as a genus he prefers to date the latter from Decandolle (1825) who, while retaining *Lotononis* provisionally as a section of *Ononis,* states that it will certainly have to be made into a genus when it has been more fully studied. When later botanists wished to apply the rules more strictly than this they turned to the earlier *Amphinomia* rather than to *Leobordea.* The advantages of conserving *Lotononis* against *Leobordea* on grounds of usage and convenience alone are overwhelming, but it should also be noted that, if *Lotononis* is not conserved, combinations in *Leobordea* will have no stability since there will doubtless continue to be authors who will accept Bentham's guess, without corroboration, and so prefer *Amphinomia.*

Proposed by: J. B. Gillett (Kew) and A. A. Bullock (Kew).

(33). Proposal to conserve the generic name **Julianía** Schlecht. (*Julianiaceae*) versus *Julianía* La Llave (*Rutaceae*).

Julianía Schlecht., Linnaea 17: 746 (1843), *nom. cons. prop.*

Holotypus: *J. adstringens* (Schlecht.) Schlecht., *loc. cit.* (*Hypopterygium adstringens* Schlecht., *loc. cit.* 636 (1843 prius).

Adopted by: Baillon, Hist. Pl. 5: 321 (1874); Benth. et Hook. f., Gen. Pl. 1: 428 (1868); W. B. Hemsley *in* Salvin et Godman, Biol. Centr. Amer. Bot. 1: 223. 1880; Engler *in* DC., Monogr. Phan. 4: 500 (1883); Harms *in* Engler et Prantl, Nat. Pflanzenfam. Nachtr. 335 (1897); W. B. Hemsley et Rose, Ann. Bot. 17: 443 (1903); W. B. Hemsley, Phil. Trans. Roy. Soc. London ser. B. 199: 169—197. *tt. 18—24* (1907).

Julianía La Llave *in* La Llave et Lexarza, Nov. Veg. Descr. 2: 4 (1825), *nom. rej. prop.*

Holotypus: *J. caryophillata* La Llave, *loc. cit.* [syn. tax. *Choisya ternata* H.B.K. (1823)].

Discussion: Schlechtendal first described this genus as *Hypopterygium* (*loc. cit.* 635) but almost immediately after publication of the name realized that it was a later homonym of *Hypopterygium* Brid. (1827), the name of a genus of mosses. In the next part of Linnaea (*loc. cit.* 746) he explained that he rejected Schiede's manuscript name *Amphipterygium* because the wing of the fruit did not surround it, but was entirely basal. Instead he chose the name *Juliania,* following current practice in regarding that name as legitimate since *Juliania* La Llave was (and is) considered to be a synonym of *Choisya* H.B.K.

The only important modern taxonomic treatment of the genus is that of Standley in his "Trees and Shrubs of Mexico (*Julianiaceae*)" (Contr. U.S. Nat. Herb. 23: 672. 1923) and there the name *Amphipterygium* is adopted but wrongly attributed to "Schiede ex Schlechtendal" (1843), as is the necessary combination for the type species. The remaining new combinations are attributed to "[W. B.] Hemsley et Rose" (1903), but those authors had merely cited the names in synonymy. The first valid publication of *Amphipterygium,* and of all the binomials under it, is by Standley (*loc. cit.*) and these names, unless *Juliania* Schlecht. is conserved, will remain legitimate and correct.

In view of the extensive literature in which the name *Juliania* is used, *Amphipterygium* Schiede ex Standley could well be discarded, in spite of its legitimacy, and we have no hesitation in proposing conservation.

Proposed by: P. G. Wilson and A. A. Bullock (Kew).

(34). Proposal to conserve the generic name **Cobaea** Cav. (*Cobaeaceae*) versus *Cobaea* Necker (*Caprifoliaceae*).

Cobaea Cav., Ic. Descr. Pl. 1: 11. *tt. 16—17* (1791), *nom. cons. prop.*

Holotypus: *C. scandens* Cav., *loc. cit.*

Adopted by: Almost all authors; the name is also almost universally adopted in the relevant horticultural literature.

Cobaea Necker, Elem. 1: 129 (1790), *nom. rej. prop.*

Holotypus: indeterminavit.

Discussion: *Cobaea* Necker has always been regarded as a synonym of *Lonicera* Linnaeus and there are no binomials under it.

Whilst there can be little argument as to the desirability of retaining the name *Cobaea* Cav., it may be said that there is no need to conserve it. Some nomenclaturists will continue to assert that all Necker's names in the *Elementa* should be rejected under Art. 5 of the Code. Necker, however, did not change the relative order of the categories; he changed only their names and it is admitted that his *species naturales* correspond exactly to the *genera* of Linnaeus. Further, some few of Necker's names have been included in the list of *nomina conservanda;* still more are among the *nomina rejicienda.* Those who reject his names under Art. 5 will find it necessary to delete the names on both sides of the list, but the authority of an International Congress is required for this, and until it is done and the Necker names are finally rejected, they will be held by some botanists to be validly published generic names.

Cobaea Cav. was adopted by Benth. et Hook. f., Gen. Pl. 2: 824 (1876), by Peter *in* Engler et Prantl, Nat. Pflanzenfam. 4 (3A): 44 (1891) and by Brand *in* Engler, Pflanzenreich, Polemoniac. 24 (1907), but House (Muhlenbergia 4: 22—25. 1908), owing to the homonymy of *Cobaea* Cav., adopted the taxonomic synonym *Rosenbergia* Oersted (holotypus *R. gracilis* Oersted) published in Vid. Meddel. Copenhagen 1856: 30 (1856). He is the only modern author to have done so; the name is merely mentioned in synonymy in the last edition of Bailey's Manual and is not mentioned at all in the R.H.S. Dictionary of Gardening.

Proposed by: P. G. Wilson and A. A. Bullock (Kew).

NEWS AND NOTES

THE MISSISSIPPI STATE COLLEGE HERBARIUM

Index Herbariorum (Third Edition, 1956) has this to say about the herbarium of Mississippi State College, "founded about 1885, number of specimens about 6000." When the Fourth Edition is published much more will have to be reported about the herbarium to which the authors have given the symbol MISSA.

When this information was submitted to Professors Lanjouw and Stafleu two or three years ago, Mississippi State's herbarium was housed in twelve square, forty-two-inch steel cases circa 1900 vintage from the Cambridge Botanical Supply Company, and a great glass-front cabinet of wood. The latter of interest because of its eighteen-inch shelves of virgin long-leaf pine rather than because of its qualities as an herbarium case. Much of the several thousand sheets consisted of grasses collected by S. M. Tracy and such contemporaries as F. S. Earle, D. L. Phares, A. B. Seymour, J. and Katherine Skehan, Charles Mohr, C. L. Pollard, A. W. Chapman, A. Gattinger, J. E. Pelton, Langlois, and others, from the region near the college and from the tree counties along the Gulf Coast. Hardly a quarter of the state's eighty-two counties were represented. Subsequent to Tracy's significant work occasional sheets were added. These consisted of plant material received from the public for identification and some student collections. Notable among the latter were collections made by R. B. Channell, a graduate student and later Instructor of Botany.

At present the herbarium consists of over twenty-two thousand specimens from every county of the State, housed, in part, in new standard seven-foot cases. All old specimens have been remounted or repaired. New family markers and genus covers, printed in a clear hand and color-coded as to geographic distribution, offer a great contrast to the soiled, tattered folders prepared so carefully by Tracy and damaged so badly by time. Thousands of newly collected, carefully dried, attractively mounted, and fully labeled specimens are filed alphabetically as to species within the genus folders. Plastic is used as an adhesive for the label as well as the specimen. Experience has shown that, when allowed to dry at least an hour before insertion in the cases, the plastic is not softened by paradichlorobenzene notwithstanding the almost subtropical climate of Mississippi.

This summer several thousand unmounted specimens were acquired from the Mississippi Game & Fish Commission Museum. Collected during a state biological survey 1936—1940 under the able direction of Miss Fannye E. Cook, Museum Curator, this material will offer distribution and variation records from previously uncollected areas.

The credit for the changes in the herbarium goes to Dr. James D. Ray, Jr., Associate Professor of Botany and Curator, and to Dr. Herbert Drennon, Dean of the College and Graduate School, by whose interest and direction a "Flora of Mississippi Project" was established. The ultimate ends of this endeavor are the assemblage and perpetuation of a collection of plants of Mississippi and the publication of adequate manuals for the use of plant scientists, students and the public alike.

The need for this work is well known. A recent estimate made by the author in 1955 of the specimens from Mississippi housed in the Gray Herbarium and the New York Botanical Garden indicated that only 1250 species from Mississippi are represented in these herbaria, 58% collected by one man, 93% over fifty years old, 70% from the three Gulf Coast counties, and all from about a dozen counties out of eighty-two.

Much of the State has an "old field" or disturbed aspect. Drainage of the Gulf Coast bogs, extreme agronomic and lumbering practices since the early days of the State, vast erosion of the North Central Plateau, as well as recent expansion of communities into natural areas have contributed to this condition to the extent that undisturbed areas have all but been deleted. The effects of Japanese Honeysuckle, Kudzu vine, and Johnson Grass may have prompted the remarks of a botanist after a recent field trip in Mississippi, "Nothing exciting and not much interesting." However, well protected areas still example much of the native vegetation. Their preservation is certainly to be encouraged.

George R. Cooley (Cambridge, Mass.)

THE CORYNDON MUSEUM

In the third edition of "The Herbaria of the World", Part I, the wording for the Herbaria listed under *Nairobi* has given rise to some misunderstanding: it creates the impression that the Herbarium of the Coryndon Museum has ceased to exist as an independent Institution and that the research done by the Museum's Staff is now to be credited and acknowledged to the East African Herbarium.

The consequence of this misunderstanding is that the Coryndon Museum Herbarium and Library receives no more direct communications or reprints from other Institutions, nor do scientific workers apply to them for herbarium material for their studies.

The fact that the Museum's Herbarium is now ignored is particularly agravating considering the considerable work done by Botanists all over the world on the subject of the flora of East Tropical Africa, who are thus deprived from examining the Museum's plant material which might be of great value for their research.

After consultation with the Director of the East African Agricultural and Forestry Organisation, the Museums Trustees of Kenya have agreed to the following alteration to be adopted for the fourth edition of "The Herbaria of the World":

NAIROBI: The East African Herbarium (Incorporating the Amani Herbarium of the East African Agricultural and Forestry Research Organisation, the herbarium of the Coryndon Memorial Museum * and the herbarium of the Kenya Forestry Department), (**EA**), P.O. Box 5166, Nairobi, Kenya, East Africa.

Status: Directed by the East Africa High Commission in collaboration with the Trustees of the Coryndon Memorial Museum.

Foundation: 1902 as the "Amani Herbarium des Biologisch-Landwirtschaftlichen Institutes, Amani, D.O.A.", and in 1950 by the incorporation of the Coryndon Museum Herbarium, which was started in 1929.

Number of specimens: About 100.000 from Eastern Africa; flowering plants, ferns, mosses and some fungi.

Herbarium: Mainly Uganda, Kenya, Tanganyika, Zanzibar, Northern Rhodesia and Nyasaland, but specimens from Eritrea, Ethiopia, Somalia, Socotra, Portuguese East Africa and Arabia have been received.

Important collections: Over 500 Berlin Botanic Garden types recorded; W. Busse, C. Uhlig, Warnecke, Hansford.

Staff of the East Africa High Commission: P. J. Greenway, O.B.E., D.Sc., F.L.S., Botanist in charge, (Taxonomic and economic botany, plant ecology and vegetation surveys).

B. Verdcourt, Ph.D., B.Sc., Assistant Taxonomic Botanist, (Rubiaceae: Pentas and related genera: Cuscuta, E. African Convolvulaceae).

Miss D. M. Napper, B.Sc., Scientific Assistant (E. African Grasses and Ferns).

Staff of the Coryndon Museum Trustees: P. R. O. Bally, Keeper of the Botanical Department Coryndon Memorial Museum (Succulent Euphorbiaceae, Asclepiadaceae, native medicinal and drug plants).

Specialization in research: East African flora, native economic plants of East Africa, grasses and pasture plants of East Africa.

Loan: To recognized botanical institutes.

Periodical or serial works: None but taxonomic papers "Notes from the E.A. Herbarium" in the Kew Bulletin by kind permission of the Editor. General in its appropriate British journal; those of a more popular nature in the East African Agricultural Journal and Journal of East African Natural History Society.

Exchange: Duplicates (East African) to the Royal Botanic Gardens, Kew, the National Herbarium, Pretoria, and others interested.

Remarks: Facilities to visiting botanists and expeditions.

NAIROBI: Coryndon Memorial Museum, Botanical Section, (**CM**), P.O. Box 658 Nairobi, Kenya, East Africa.

Status: Directed by the Museums Trustees of Kenya.

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*) *Important notice:* For the sake of convenience to students of the East African Flora, the herbarium sheets of the Coryndon Museum's collection have been amalgamated with those of the East African Herbarium, while remaining the property of the Museums Trustees of Kenya. *The botanical Department of the Coryndon Museum continues as an independent organisation.*

Foundation: 1929. Herbarium of about 22.000 specimens, mostly from Kenya, but important collections from Somaliland Protectorate, Somalia, Southern Ethiopia, Tanganyika.

Staff: P. R. O. Bally, Keeper of the Botanical Department, Coryndon Memorial Museum (Succulent Euphorbiaceae, Asclepiadaceae, native medicinal and drug plants).

Remarks: A considerable number of duplicate herbarium sheets are available on application from other botanical institutions.

P. R. O. Bally.

HERBARIUM BOTANICAL SURVEY OF INDIA, WESTERN CIRCLE, POONA

Introduction

The Herbarium of the Western Circle of the Botanical Survey of India is located at Poona, India. It houses more than 70.000 specimens from all parts of India and some from outside countries, but the flora of Western India is best represented. The herbarium is available for reference to bonafide research workers and specimens are available for exchange with recognised institutions.

History

The original herbarium of the Western Zone of the Botanical Survey of India was organized by Dr. Theodore Cooke, Director for the Western Zone. Cooke and Woodrow undertook botanical exploration of this zone jointly during the last two decades of the 19th century. In 1902, the entire herbarium was destroyed by fire. Dr. Cooke gave his personal duplicate set of Bombay Specimens as a gift to the herbarium.

Numerous workers contributed to the early development of this herbarium. Talbot's collections particularly from north Kanara were purchased in 1910 and added to the herbarium. These specimens numbered about 10.000 and are a very notable addition.

A large number of specimens were received in exchange or as gift from different parts of India and many adjacent countries. Collections of Mr. Paranjpye from Mesopotamia were added in 1920. This old herbarium has about 45.000 sheets.

Three important botanical works pertaining to the botany of Western India have been written based on the materials of this herbarium. These are Cooke's Flora of Bombay Presidency, Talbot's Forest Flora of Bombay and Blatter & McCann's Bombay Grasses.

Some of the oldest specimens are in very fragile condition, but they are being renovated and repaired and due care is being given for their best preservation.

The Department of Botanical Survey was reorganized two year's ago and the present activities of the herbarium of Western Circle at Poona started about February 1956.

The Western Circle has a total area of about 370.000 square miles. Almost all types of vegetations are met with ranging from desert scrub to wet evergreen forests. The climate varies greatly in different parts of the Circle. There are areas with practically no rainfall and areas with more than 450 inches rain in a year. Mudigere has rainfall only next to Cherrapunji.

Plant exploration during the year 1956—57 was conducted in the following areas during different seasons: North Kanara, Kerala, Khandesh, Bombay State — Poona District, Kolaba, Satara, Kutch and Saurashtra, Aravallis.

The plants have been collected mostly in replicates of 5 or 6 and after mounting two sheets for the herbarium, there are still 2 or 3 sheets available of each plant for exchange purposes.

About 10.000 sheets from the new collection of 1956—57 have been identified and arranged according to Bentham and Hooker's classification. During the year, 15.000 sheets were mounted, 12.000 stitched. Attached to the herbarium is a well developed museum which contains specimens of seeds, fruits, tree barks, fungi, lichens and mosses and specimens of woods etc. The herbarium maintains a collection of over 1000 photographs taken during excursions of different types of vegetation and plants.

The museum has a large number of interesting exhibits both of interest for layman and for advanced students. The Western Circle of the Botanical Survey of India has been recognized by a number of Indian Universities as a centre for guiding research for M.Sc., Ph.D., and D.Sc.

The Institution has offered facilities to University teachers and students for identification of their collections and has arranged series of lectures and short courses on methodology of plant exploration and survey and ecological studies. Help was given to numerous institutions and individuals for correct identification of medicinal plants.

ON THE TYPIFICATION OF *PLECTRANTHUS*

The generic name *Plectranthus* was published by L'Héritier in his Stirpes Novae, Fasc. 4: 84, probably March 1788 (see Woodward & Britten, Journ. Bot. 43: 267. 1905) and the first selection of a lectotype species of *Plectranthus* was *P. punctatus* (Linn. f.) L'Hérit., made by Miss M. L. Green (in Prop. Brit. Bot. 107: 1929). No argument was given and the only reason for choosing that species appears to be that it was described (as *Ocimum punctatum* Linn. f.) some years earlier than *P. fruticosus* L'Hérit. The latter was quoted as lectotype by Phillips (Gen. S. Afr. Fl. Pl. ed. 2. 650: 1951), again with no argument, but presumably because he had found that *P. punctatus* (Linn. f.) L'Hérit. has united stamen filaments and must be transferred to *Coleus* *). This character is not shown in L'Héritier's figure (*l.c. t. 42*).

It is clear that this will involve the coining of a new generic name for *P. fruticosus* and its very numerous allies unless Phillips' counter proposal is accepted.

It is necessary to show that *P. fruticosus* fits the generic description more closely than does "*P. punctatus*" in accordance with Appendix IV, 4e of the Paris Code (p. 295).

In the first place, the spur of *P. fruticosus* is very prominent whilst that of *P. punctatus* is a mere gibbosity. Indeed, the generic name is derived from this character (*l.c.* p. 84). "A vocibus graecis *πλῆχτρον*, calcar gallinaceum, et *ἄνθος*, flos, uti solum adhuc genus ex didynamis gymnospermis gaudens nectario calcarato, haud absolute in insolito inter didynamas angiospermas." Later (*l.c.* p. 88) L'Héritier remarks that the corolla of *P. punctatus* is saccate and not spurred. The lower calyx lobes of *P. fruticosus* fit the generic description exactly whilst those of *P. punctatus*, instead of being very narrow and unequal, are broad and subequal. The anthers of *P. fruticosus* are very clearly tetragonal whilst those of *P. punctatus* differ from the generic description in being ovate. These facts, allied to the nomenclatural changes which are involved in retaining *P. punctatus* as the type of *Plectranthus* are, in our opinion, sufficient to render most desirable the adoption of *P. fruticosus* as the type-species of the generic name.

A. A. Bullock (Kew)
D. J. B. Killick (Pretoria)

*) **Coleus praetermissus** *Bullock et Killick*, nom. nov. *Ocimum punctatum* Linn. f. Suppl. 275 (1781). *Plectranthus punctatus* (Linn. f.) L'Hérit. Stirp. Nov. fasc. 4: 87, t. 42 (1788). Non *Coleus punctatus* Baker (1895).

PROPOSALS TO THE MONTREAL CONGRESS

14. Proposal: That the following specific example be added to the phonetic alphabetical equivalents given in Art. 73 (ICBN 1956):

"ç" becomes "s" and not "c".

Justification: Judging by the example given in Taxon 6(7): 209, there is a need for a specific ruling on this point. This example concerns the incorrect romanization of the Japanese plant name as "kumasaca" instead of "kumasasa".

Documentation: McClure, F. A., Typification of the Genera of Bambusoideae, with some notes on status, Taxon 6(7): 209. 1957.

Proposed by: F. A. McClure (Washington DC.).

15. Proposal: After Art. 14, Note 6, add the following:

Note 7. When a controversy has arisen about any particular proposal, safeguards shall be observed to insure impartial procedure so that the proposal will be considered strictly on its merits: The General Committee shall refer the proposal for examination to a committee of the customary number of members who are not involved in the controversy either directly or indirectly, and who according to their solemn affirmations have no preconceived mental reservations on the subject. This rule shall apply to all controversial proposals under this Article not finally approved by a Congress up to and including 1954.

Argument: It is logical and desirable to set up a simple procedure as outlined in the proposed Note 7, in order to make the impartial consideration of controversial proposals automatic. In this manner the officers will not be embarrassed by protests and complaints, and the elementary human rights of all taxonomists will be preserved. Under such an impartial procedure, the business of the committee concerned will be carried out with a minimum of friction. All should welcome the adoption of an impartial procedure in such controversial cases.

The proposals under Art. 14 may be placed into two classes:

(1) In the first class are those made by specialists in the groups concerned who have a profound knowledge of the biologic (taxonomic) facts as applied to the Code provisions (cf. Preamble, of the Code). In addition there is no serious objection from other workers whose published results are affected. This class includes most of the proposals, and there is work of this kind to be done for a great many years. Any work thus accomplished will be applauded by all.

(2) In the second class are proposals made by non-specialists in the groups concerned who have no profound knowledge of the biologic (taxonomic) facts as applied to the Code provisions. These concern attempts to conserve a particular name for sentimental reasons even when it will upset a stabilized Code-based nomenclature built up over a period of years, and would thus make necessary many unnecessary name changes, cause utter confusion, and sabotage the conscientious work of living specialists in the particular groups concerned and who have a profound knowledge of the biologic (taxonomic) facts as applied to the Code provisions (cf. Preamble, of the Code).

It is the latter class of cases, relatively few in number but very important from the standpoint of elementary justice, to which Note 7 would apply. It would automatically provide an impartial committee to consider such proposals and would thus tend to eliminate controversies, and would shield the officers from embarrassment.

Proposed by: Hamilton P. Traub (Arcardia, Calif.).

NATIONAL SCIENCE FOUNDATION

The Division of Biological and Medical Sciences of the National Science Foundation announces that the next closing date for receipt of research proposals in the life sciences is January 15, 1958. Proposals received prior to that date will be reviewed at the Winter meetings of the Foundation's Advisory panels and disposition will be made approximately four months following the closing date. Proposals received after the January 15, 1958, closing date will be reviewed following the Spring closing date of May 15, 1958.

In addition to funds for the support of basic research in the life sciences, limited funds will be available during the current fiscal year for the support of research facilities and programs at biological field stations.

Inquiries should be addressed to National Science Foundation, Washington 25, D.C.

SPECIAL COMMITTEE ON ECONOMIC PLANTS

The International Commission for the Nomenclature of Cultivated Plants of the International Union of Biological Sciences held its inaugural meeting at Utrecht from 21-23 November 1956. This Commission took over the sponsorship of the International Code for the Nomenclature of Cultivated Plants (ICNCP), a sponsorship formerly held by the International Horticultural Congress.

The Commission consists of representatives from agriculture, forestry and horticulture and maintains close contact with the appropriate international bodies in this field.

Although the main task of the Commission is to redraft the I.C.N.C.P. so as to bring it into accordance with the requirements of agriculture and forestry, it discussed for some time the question of the stabilization of specific names of plants of great economic importance. The Commission agreed that it would be highly desirable to have a special committee, preferably working on the same level as the other special committees of the International Botanical Congress, that would be charged with the following duties:

1. To take into consideration and to report on cases of name-changes (on the specific level) of plants of great economic importance. This task could be compared with that of the regular nomenclature committees. By a detailed and thorough study of such cases, the erroneous changes could be avoided. Unavoidable changes would, on the other hand be more easily acceptable, when they come from such an authorized body.

2. To consider the possibility of establishing lists of names of plants of economic importance. Such lists could be studied by the appropriate authorities and might eventually lead to the setting up of check-lists of what are considered to be the correct names of those plants under the Botanical Code. It is realized that the setting up of such lists will be practicable only in those cases where the number of species per type of crop is not too high (e.g. in forestry; cereals).

3. To recommend to the Special Committee on Stabilization those legislative measures which the committee might think of use in attaining stabilization.

The General Committee of Botanical Nomenclature has now decided to establish this special committee for the names of economic plants.

It might be thought that the duties of this committee would overlap those of two already existing ones. This is not the case:

1. *The Special committee on stabilization* has been charged only to put proposals before the Montreal Botanical Congress to amend the Code so as to stabilize specific names of plants of great economic importance. Their members have not been asked to take on duties as outlined above.

2. *The Committee for Cultivated Plants* is a legislative one and has not been established to study special cases, nor is it so composed that it would be able to draw up lists as mentioned above sub 2.

On the recommendation of the International Commission for the Nomenclature of Cultivated Plants, the General Committee has asked the following persons to serve on this Special Committee.

representing agriculture:

Dr. P. S. Hudson, Cambridge, Gr. Br.
Dr. G. Nillsson-Leissner, Stockholm.
Dr. F. E. Nijdam, Wageningen.

representing forestry:

Dr. E. L. Little Jr., Washington, D.C.
Mr. J. D. Matthews, Wrecclesham, Surrey.

representing horticulture:

Dr. B. K. Boom, Wageningen.
Dr. G. H. M. Lawrence, Ithaca, N.Y.

representing "botany":

Mr. J. S. L. Gilmour, Cambridge, Gr. Br. (*chairman*).
Dr. N. Hylander, Uppsala.
Dr. F. A. Stafleu, Utrecht (*secretary*).

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NOTICES OF BOOKS

Contributions to this column will be gratefully received by Mr. K. U. Kramer, Botanical Museum, Lange Nieuwstraat 106, Utrecht, Netherlands.

Flora Malesiana

Ser. I vol. 5 pt. 3

C. G. G. J. van Steenis: Specific and infraspecific delimitation. (pp. clxvii-ccxxxiv), (extra reprints of this paper are on sale with the Flora Malesiana Foundation, c/o Rijksherbarium, Leiden, at sh. 13.— or $ 2.— apiece, a discount is given on orders for several copies).

Id.: *Scyphostegiaceae* (pp. 297-299), *Basellaceae* (pp. 300-304).

P. W. Leenhouts: *Dichapetalaceae* (pp. 305-316), *Goodeniaceae* (pp. 335-344).

C. den Hartog: *Alismataceae* (pp. 317-334).

K. Bakker & C. G. G. J. van Steenis: *Pittosporaceae* (pp. 345-362).

W. Vink: *Hamamelidaceae* (pp. 363-379).

Flora of Java

R. C. Bakhuizen van den Brink, Jr.: Beknopte flora van Java (Nooduitgave). XVII (fam. 225). *Araceae*. Leiden, 1957. (56 pp., with keys and descriptions; in Dutch).

Flora of Egypt

V. Täckholm, M. Drar & A. A. Abdel Fadeel: Students' Flora of Egypt. Cairo, 1956. (649 pp., with keys to families, genera, and species, concise descriptions, numerous line-drawings, photographs of plants in their natural habitats, and a coloured frontispiece; deals with all vascular plants).

Flora of the U.S.S.R.

Flora S.S.S.R. Vol. 24. E. G. Bobrov: *Morinaceae, Dipsacaceae;* I. T. Vasilčenko: *Cucurbitaceae;* A. A. Fjodorov: *Campanulaceae;* S. G. Gorškova: *Lobeliaceae*. Moscow/Leningrad, 1957. (xvii + 501 pp., 27 plates, ed. by B. K. Šiškin & E. G. Bobrov).

Flora of Siberia

M. G. Popov: Flora srednej Sibiri (Flora of Central Siberia) I. *Polypodiaceae — Empetraceae*. Moscow/Leningrad, 1957. (554 pp., 65 figs.; an enumeration with rather concise descriptions, with data on ecology and distribution; in Russian).

Lichens of the Ucraine

A. M. O. Oxner: Flora lišajnikiv Ukraini (Lichen Flora of the Ucraine), Vol. I. Kiev, 1956. (495 pp., 176 figs.; 1 map; with keys to families, genera, and species, descriptions, concise data on habitat and distribution; in Ucrainian).

Flora of Belgium

Flore Générale de la Belgique II (III) (pp. 287-490). A. Lawalrée: *Cruciferae* (concl.), *Resedaceae, Droseraceae, Crassulaceae;* D. A. Webb: *Saxifragaceae.* Bruxelles, 1957. (40 figs., 15 photographs).

Flora of Nevada

C. L. Porter: Contributions toward a flora of Nevada 42. *Leguminosae* of Nevada, part III (exclusive of *Lupinus, Astragalus* and *Oxytropis*). Beltsville, Md., 1957. (69 pp., 48 maps).

Pleosporaceae

L. Holm: Etudes taxonomiques sur les Pléosporacées. Publ. as Vol. XIV: 3 of Symb. Bot. Upsal., Uppsala, 1957. (188 pp.; deals with *Leptosphaeria, Melanomma, Ophiobolus, Nodulosphaeria, Leptospora, Phaeosphaeria, Entodesmium, Trichometasphaeria, Massarina, Didymosphaeria,* and *Trematosphaeria.* With keys, descriptions, and 6 drawings).

Cytogenetics of Geum

W. Gajewski: A cytogenetic study on the genus *Geum* L. Publ. as Vol. IV of Monographiae Botanicae by the Polish Botanical Society, Warsaw, 1957. (416 pp.; with key to subgenera, synopsis of all species, distribution maps, drawings, data on distribution, morphology, cytology, and hybridization).

Distribution of Dianella

J. Schlittler: Die Verbreitung der Liliaceengattung *Dianella* Lam. im Zusammenhang mit der Organdifferenzierung und der Arealbildung. Publ. as Vol. 207 of Mitt. Bot. Mus. Univ. Zürich, 1957. (38 pp., with keys, illustrations, and maps).

Flora of Cuba

Bro. Alain: Flora de Cuba IV. (With collab. of J. Acuña, J. T. Roig, G. J. Amshoff and C. V. Morton). Havana, Cuba, 1957. (556 pp., 230 illustrations).

Drawings of Danish plants

O. Hagerup & V. Petersson: Botanisk Atlas, Danmarks daekfrøede planter. København, 1956. (ca. 500 plates, drawings of habit by the junior and of details by the senior author).

Catalogue and statistics of the genera of Phanerogams

J. Angely: *Catálogo e Estatistica dos Gêneros Botânicos Fanerogâmicos.* 1: Histórico, by J. Angely; 2: List of collaborators; *Bromeliaceae,* by L. B. Smith; 3: *Quiinaceae,* by J. M. Pires; 4: *Hydrophyllaceae,* by L. Constance; 5: *Polemoniaceae,* by H. L. Mason; 6: *Rafflesiaceae,* by I. de Vattimo; 7: *Stilbaceae,* by H. N. Moldenke; 8: *Symphoremaceae,* by H. N. Moldenke; 9: *Avicenniaceae,* by H. N. Moldenke; 10: *Eriocaulaceae,* by H. N. Moldenke; 11: *Magnoliaceae,* by J. E. Dandy; 12: *Valerianaceae,* by O. E. Borsini. All Curitiba, Paraná, 1956. (Lists recognized genera with synonyms and number of species and bibliography of family names).

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Monographs, revisions, etc., published in periodicals

N. M. Bacigalupo: Rubiáceas Argentinas de las tribus *Guettardeae* y *Chiococceae.* Darwiniana 11 (2): 140-162 (1957). (With keys to genera and species, descriptions, and figures).

C. E. B. Bremekamp: Monographie du genre *Saldinia* A. Rich. (Rubiacées). Candollea 16: 91-129 (1957). (With key and descriptions).

V. S. Bryan & L. E. Anderson: The *Ephemeraceae* in North America. The Bryologist 60(2): 67-95 (1957). (With keys to genera and species and illustrations).

M. Buchinger: Sinopsis preliminar de las especies Argentinas del género *Polygonum* L. Bol. Soc. Arg. Bot. 6 (2): 98-106 (1956). (An enumeration, with key).

A. L. Cabrera & N. Vittet: Catálogo de las Eupatorieas Argentinas. Rev. Mus. La Plata n.s. 8 (Botánica 31): 179-263 (1956). (With keys).

A. B. Cribb: Records of marine Algae from South-Eastern Queensland — II. *Polysiphonia* and *Lophosiphonia.* Univ. of Queensl. Papers (Dept. of Botany) 3 (16): 131-147 (1956). (With keys and figures).

R. M. Crovetto: Revisión crítica del género *Elateriopsis.* Darwiniana 11 (2): 223-243 (1957). (With key, descriptions, and figures).

G. L. Davis: Revision of the genus *Podolepis* Labill. Proc. Linn. Soc. N.S. Wales 81 (3): 245-286, 1956 (1957). (With keys, descriptions, drawings, and maps).

G. Dawson: Escrofulariáceas Bonaerenses. Revisión de las especies que habitan en la provincia de Buenos Aires. Rev. Mus. La Plata n.s. 8 (Botánica 31): 1-62 (1956). (With keys, descriptions, and drawings).

R. L. Dressler: The genus *Pedilanthus* (*Euphorbiaceae*). Contr. Gray Herb. 182: 1-188 (1957). (With data on anatomy and morphology, distribution, ecology, keys, descriptions, maps, and figures).

C. Epling: Revisión del género *Hyptis* (*Labiatae*). Rev. Mus. La Plata n.s. 7 (2a) (Botánica 29): 153-497 (1956). (With keys, descriptions, and maps).

T. R. Fisher: Taxonomy of the genus *Heliopsis* (*Compositae*). Ohio Jo. Sci. 57 (3): 171-191 (1957). (With key, descriptions, and maps).

Ding Hou: A conspectus of the genus *Bruguiera* (*Rhizophoraceae*). Nova Guinea n.s. 8 (1): 163-171 (1957). (With key).

R. A. Howard: Studies in the genus *Coccoloba,* IV. The species from Puerto Rico and the Virgin Islands and from the Bahama Islands. Jo. Arnold Arbor. 38 (3): 211-242 (1957). (With keys and descriptions).

I. M. Johnston: Studies in the *Boraginaceae,* 29. *Echiochilon* and related genera. Ibid. 255-293 (1957). (With keys and descriptions).

A. J. G. H. Kostermans: Le genre *Ocotea* Aubl. (*Lauraceae*) à Madagascar. Communic. 60 from the Forest Res. Inst. Bogor, Indonesia, 1957; 25 pp., 18 photographs.

C. D. Legrand: Representantes neotropicales del género *Myrceugenia.* Darwiniana 11 (2): 293-365 (1957). (With keys, descriptions, and figures).

A. Lourteig: Ranunculáceas de Sudamerica Tropica. Mem. Soc. Cienc. Nat. La Salle 16 (43/44): 19-228 (1956). (With keys, descriptions, 44 drawings and 10 photographs).

A. del Pilar Rodrigo: Los "*Hibiscus*" de la flora Argentina. Rev. Mus. La Plata n.s. 7 (2a) (Botánica 29): 111-152 (1956). (With key, descriptions, illustrations, and maps).

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Catalogue and critical revision of the known European tertiary fruit and seed remains. The older pleistocene material ("Tiglien", "Needien") is regarded by the author as young pliocene and included in this revision.

* * *

RECTIFICATION

The name of the first author of the biographical sketch of Tomitaro Makino in Taxon 6(5): 125 (1957) should property be spelled Kiyotaka Hisauchi. The editors beg to be excused for this error in printing.

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[17 (H. C. D. de Wit), (*New. Rec. 42 A*), published in Taxon 5: 6. 1956 as "no. 3"].

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